HITACHI

Inspire the Next

DVD RECORDER

English

Instruction Manual

Model No. **DV-RX7000E**

DVD VIDEO RAM/RW

RAM COMPATIBLE PRODUCTS

COMPACT disc DIGITAL AUDIO

dts DIGITAL OUT

DOLBY DIGITAL

SHOWVIEW®

SHOWVIEW is a registered trademark of Gemstar Development Corporation. The SHOWVIEW system is manufactured under license from Gemstar Development Corporation.

Region number supported by this unit

Region numbers are allocated to DVD players and software according to where they are sold.

- The region number of this unit is "**2**".
- The unit will play DVDs marked with labels containing "**2**" or "**ALL**".

Example:

Dear customer

Thank you for purchasing this product. For optimum performance and safety, please read these instructions carefully.

Before connecting, operating or adjusting this product, please read these instructions completely. Please keep this manual for future reference.

Warning

TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE THE COVER (OR BACK).
NO USER-SERVICEABLE PARTS ARE INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This symbol indicates “dangerous voltage” inside the product that presents a risk of electric shock or personal injury.

This symbol indicates important instructions accompanying the product.

Do not install this equipment in a confined space such as a bookcase or similar unit.

WARNING : To prevent damage which may result in fire or electric shock hazard, do not expose this appliance to rain or moisture.

CAUTION : DVD RECORDERS USE AN INVISIBLE LASER BEAM WHICH CAN CAUSE HAZARDOUS RADIATION EXPOSURE IF DIRECTED.
BE SURE TO OPERATE RECORDER CORRECTLY AS INSTRUCTED.

CAUTION
THIS PRODUCT UTILIZES A LASER.
USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.
DO NOT OPEN COVERS AND DO NOT REPAIR YOURSELF. REFER SERVICING TO QUALIFIED PERSONNEL.

CAUTIONS
This product satisfies CE regulations when shielded cables and connectors are used to connect the unit to other equipment. To prevent electromagnetic interference with electric appliances, such as radios and televisions, use shielded cables and connectors for connections.

IMPORTANT NOTE
The product unit accompanying this user manual is licensed under certain intellectual property rights of certain third parties. This license is limited to private non-commercial use by end-user consumers for licensed contents.
No rights are granted for commercial use.
The license does not cover any product unit other than this product unit and the license does not extend to any unlicensed product unit or process conforming to ISO/IEC 11172-3 or ISO/IEC 13818-3 used or sold in combination with this product unit. The license only covers the use of this product unit to encode and/or decode audio files conforming to the ISO/IEC 11172-3 or ISO/IEC 13818-3.
No rights are granted under this license for product features or functions that do not conform to the ISO/IEC 11172-3 or ISO/IEC 13818-3.

Precaution

Important Safety Instructions

Read these operating instructions carefully before using the unit. Follow all the safety instructions listed below. Keep these operating instructions handy for future reference.

1) Read these instructions.
2) Keep these instructions.
3) Heed all warnings.
4) Follow all instructions.
5) Do not use this apparatus near water.
6) Clean only with dry cloth.
7) Do not block any ventilation openings, Install in accordance with the manufacturer's instructions.
8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other.
   A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11) Only use attachments/accessories specified by the manufacturer.
12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13) Unplug this apparatus during lightning storms or when unused for long periods of time.
14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15) Never spill liquid of any kind on this unit. If liquid is spilled into the unit, cousult qualified service engineer.

Handling Cautions

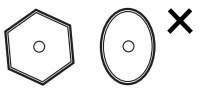
- Before connecting other components to this recorder, be sure to turn them all off.
- Do not move the recorder while a disc is being played, or the disc may be scratched or broken, and the recorder's internal parts may be damaged.
- Do not put a flower vase filled with water or any small metal objects on the recorder.
- Be careful not to put your hand into the disc tray.
- Do not place anything other than the disc in the disc tray.
- Exterior interference such as lightning and static electricity can affect normal operation of this recorder. If this occurs, turn the recorder off and on again with the POWER button, or disconnect and then reconnect the AC power cord to the AC power outlet. The recorder will operate normally.
- Be sure to remove the disc and turn off the recorder after use.
- Disconnect the AC power cord from the AC outlet when you don't intend to use the recorder for long periods of time.
- Clean the disc by wiping in a straight line from the inside to the outside of the disc.

Maintenance of Cabinet

For safety reasons, be sure to disconnect the AC power cord from the AC outlet.
- Do not use benzene, thinner, or other solvents for cleaning.
- Wipe the cabinet with a soft cloth.

Disc Handling

- Use discs with regular shapes. If an irregular disc (a disc with a special shape) is used, this DVD recorder may be damaged.



Holding discs

- Avoid touching the surface of a disc where recording is performed.

Cartridge

- This is used to prevent damage by dirt, scratches, etc. when using a DVD-RAM/RW/R disc.

DVD-RAM, DVD-RW and DVD-R

- Clean with an optional DVD-RAM/PD disc cleaner (generally available). Do not use cleaners or cloths for CDs to clean DVD-RAM/DVD-RW/DVD-R discs.

DVD-Video, CD

- Wipe off dirt or contamination on the disc with a soft cloth.

Cautions on handling discs

- Do not write on the printed side with a ball-point pen or pencil.
- Do not use record cleaning sprays or antistatic. Also, do not use volatile chemicals, such as benzene or thinner.
- Do not apply labels or stickers to discs. (Do not use discs fixed with exposed tape adhesive or leftover peeled-off stickers.)
- Do not use scratch-proof protectors or covers.
- Do not use discs printed with label printers available on the market.
- Do not load warped or cracked discs.

Disc Storage

Be careful not to harm the disc because the data on these discs is highly vulnerable to the environment.
- Do not keep under direct sunlight.
- Keep in a cool ventilated area.
- Store vertically.
- Keep in a clean protection jacket.
- If you move your DVD recorder suddenly from a cold place to a warm place, condensation may generate on the operating parts and lens and cause abnormal disc playback. If this occurs, remove the disc and wait for one to two hours with the power on before attempting playback.

Disc Specifications

DVD-Video

- A digital versatile disc (DVD) can contain up to 135-minutes of images, 8-language audio and 32 subtitle languages. It is equipped with MPEG-2 picture compression and Dolby digital surrounding, allowing you to enjoy vivid and clear theater quality images in the comfort of your own home.
- When switching from the first layer to the second layer of a dual-layered DVD Video disc, there may be momentary distortion in the image and sound. This is not a malfunction of the unit.
- Once a DVD-R/RW recorded in Video Mode is finalized, it becomes DVD-Video.

Audio CD

- An audio disc on which 44.1 kHz PCM Audio is recorded.
- Plays CD-DA format audio CD-R and CD-RW discs. The unit may not be able to play some CD-R or CD-RW discs due to the condition of the recording.

CD-R/RW

MP3 CD-R/RW

- Only CD-R discs with MP3 files recorded with ISO9660 or JOLIET format can be played back.
- Only MP3 files with the ".mp3", ".MP3" extension can be used.
- For MP3 files recorded with a VBR (Variable Bit Rates), from 32 kbps to 320 kbps, the sound may cut in out.
- Playable bitrate range is from 56 kbps to 320 kbps.
- The unit can handle a maximum of 1000 files and folders.

JPEG CD-R/RW

- Only JPEG files with the ".jpg", ".JPG" extension can be used.
- The unit can handle a maximum of 1000 files and folders.
- Maximum size of progressive JPEG is 3M pixels.
- MOTION JPEG is not supported.

Using CD-R/RW

- If the CD-R/RW disc was not recorded as a closed session, you may experience a delay in the early playback time, and all recorded files may not play.
- Some CD-R/RW discs may not be playable with this unit, depending on the device which was used to burn them. For contents recorded on CD-R/RW media from CDs for your personal use, playability may vary depending on contents and discs.

DVD-R Disc Playback and Recording

- Once a DVD-R recorded in Video Mode is finalized, it becomes DVD-Video.
- You can record onto the available space on the disc and perform editing functions such as giving titles to discs and programs and erasing programs before finalizing.
- When programming is erased from a DVD-R, that space does not become available. Once an area on a DVD-R is recorded on, that area is no longer a vailable for recording, whether the recording is erased or not.
- It takes about 30 seconds for the unit to complete recording management information after recording finishes.
- This product optimizes the DVD-R for each recording. Optimizing is carried out when you start recording after inserting the disc or turning on the unit. Recording onto the disc may become impossible if optimizing is carried out too many times.
- Playback may be impossible in some cases due to the condition of recording.
- This unit can play back DVD-R discs recorded and finalized with a Hitachi DVD recorder. It may not be able to play some DVD-R discs depending on the disc and the condition of the recording.

DVD-RW Disc Playback and Recording

- Recording and playback can be performed on a DVD-RW discs in both the Video and VR Modes.
- Once a DVD-RW recorded in VR Mode or Video mode is finalized, you cannot perform additional recording.
- Once a DVD-RW recorded in Video Mode is finalized, it becomes DVD-Video.
- In both modes, playback can be performed before and after finalization, but additional recording, deleting and editing cannot be performed after finalization.
- If you want to record the disc in VR Mode and then record in V Mode, be sure to execute Format. Be careful when executing Format because all the recorded data may be lost.
- A DVD-RW blank disc is initialized to VR Mode when first initialized.

• DVD-RW (VR mode)
- This is a format that is used for recording data on a DVD-RAM or DVD-RW disc. You can repeat recording, editing, deleting, partial deletion, creation of playlist, and etc.
- A disc that is recorded in this mode may not be played by an existing DVD player.

• DVD-RW (Video mode)
- This is a format that is used for recording data on a DVD-RW or DVD-R disc. The disc can be played by an existing DVD player once it has been finalized.
- If a disc that has been recorded in Video Mode by a different maker's recorder but has not been finalized, it cannot be played or additionally be recorded by this recorder.

DVD-RAM Disc Playback and Recording

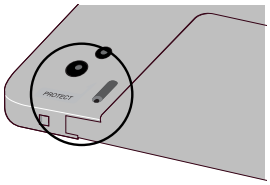
- DVD-RAM discs come with or without a cartridge. For this product, we recommend DVD-RAM discs that come with cartridges.
- Some cartridges are able to eject the disc inside. Even if you are able to eject the disc, always use the disc with the cartridge to ensure correct operation.
- DVD-RAM discs have a Write Protect tab in order to avoid accidental erasure of recorded data. With the Write Protect tab set to PROTECT, you can play the disc, but recording or erasing will not work. Set the Write Protect tab to UNPROTECT to format the disc or erase data.
- Ensure that the recording mode is set to VR mode. Otherwise, this product will not be able to play the recording.
- You cannot play a DVD-RAM in most DVD players due to compatibility issues.
- Only DVD-RAM standard Version 2.0 discs can be played in this unit.
- DVD-RAM recorded on this unit may not work with other DVD players. To determine compatibility with these DVD-RAM discs, refer to the user's manual for the player.

- This unit is compatible with both non-cartridge and cartridge DVD-RAM, but the write-protect tabs on cartridge-type discs give better protection to your recordings.

COPY PROTECTION

- Many DVD discs are encoded with copy protection. Because of this, you should only connect your DVD recorder directly to your TV, not to a VCR. Connecting to a VCR results in a distorted picture from copy-protected DVD discs.
- This product incorporates copyright protection technology that is protected by methods claims of certain U.S. patents and other intellectual property rights owned by Macrovision Corporation and other rights owners. Use of this copyright protection technology must be authorized by Macrovision Corporation, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision Corporation. Reverse engineering or disassembly is prohibited.

This DVD Recorder can allow you to protect the contents of your discs, as described below.



- Cartridge-protected: With the write-protect tab located in the protect position, the contents of the disc cannot be recorded, edited, or erased.
- Program-protected: See page 72 “Locking a Title”
- Disc-protected: See page 84 “Disc Protection”

✻ DVD-RAM/DVD-RW/DVD-R discs that are incompatible with VR/V format cannot be played with this product.
✻ For more information on recording a DVD, consult your DVD-RAM/DVD-RW/DVD-R manufacturer.
✻ If poor quality DVD-RAM/DVD-RW/DVD-R discs are used, your recordings may fail.

Do not use the following discs!

- LD, CD-G, CD-I, Video-CD, CD-ROM, DVD-ROM, DVD+R and DVD+RW discs should not be used in this product.

[Note]

Disc types that can be played : CD/CD-R/CD-RW/ MP3/JPEG/DVD-Video/DVD-RAM/DVD-RW/ DVD-R. For a DVD-R/DVD-RW disc, which has been recorded in Video Mode on another component, it can play only when finalized.

- Some commercial discs and DVD discs purchased outside your region may not be playable with this product.
  When these discs are played, either “No disc." or "Please check the regional code." will be displayed.
- If your DVD-RW disc is an illegal copy or is not in DVD video format, it may also not be playable.

✻ We recommend using Hitachi Maxell discs as they have been confirmed to be compatible with this unit. Other discs may not perform correctly.

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English

General Features

The DV-RX7000E allows you to record and play high quality digital images on DVD-RAM/DVD-RW/DVD-R discs.You can record and edit digital images on DVD-RAM/DVD-RW/DVD-R discs as if they were VCR tapes.

High quality digital audio and video recording and playback
Record up to 12-hours of images with a double sided 9.4 GB DVD-RAM disc, and up to 6-hours of images with a 4.7 GB DVD-RAM/DVD-RW/DVD-R disc, depending on the recording mode.

Selectable Recording Mode
You can set your recorder to one of four different recording speeds, each varying in recording quality and length. EP mode yields the most recording time, LP & SP modes provide less recording time with higher quality recording, and XP mode gives you the highest quality recording.

Automated Quality Adjustment for Timer Recording
If FR (Flexible Recording) mode is selected, the video quality is adjusted automatically so that all images for the scheduled time can be recorded onto the free disc space. (See page 42.)

Time Slip and Picture In Picture (PIP)
Use the Time Slip function to review the recorded images while a recording is underway. Use the PIP function to view both the playback and recording screens simultaneously. (See page 40.)

Creating a DVD video title using DVD-RW/DVD-R disc
With a DV-RX7000E, create your own DVD video title on 4.7 GB DVD-RW/DVD-R discs.

Copying data from a digital camcorder using a DV input jack
Record digital camcorder images onto DVD-RAM or DVD-RW, DVD-R discs using the DV input jack (IEEE 1394-4pin). (See pages 20 and 39.)

A variety of functions with an easy-to-use user interface
The integrated menu system and the messaging function allow you to perform desired operations both easily and conveniently. With a DVD-RAM or DVD-RW disc, you can edit recorded images, create a playlist, and edit images in a specific sequence according to your requirements.

Before Reading the Instruction Manual

Make sure to check the following matters before reading the instruction manual.

This manual shows In English all words, phrases and messages that will appear on the TV screen.

Icons that will be used in manual

Icon	Term	Definition
DVD	DVD	This involves a function available in DVD or DVD-R/DVD-RW discs that have been recorded and finalized in Video Mode.
RAM	RAM	This involves a function available in DVD-RAM.
RW	RW	This involves a function available in DVD-RW.
R	R	This involves a function available in DVD-R.
CD	CD	This involves a function available in a data CD (CD-R or CD-RW).
JPEG	JPEG	This involves a function available in a data picture CD (CD-R or CD-RW).
MP3	MP3	This involves a function available in a data CD (CD-R or CD-RW on which MP3 is recorded).
	Caution	This involves a case where a function does not operate or settings may be cancelled.
	NOTE	This involves tips or instructions on the page that help each function operate.
	One-Touch button	A function that can be operated by using only one button.

About the use of this instruction manual

1) Be sure to be familiar with Safety Instructions before using this product. (See pages 2~3)
2) If a problem occurs, check for Troubleshooting. (See pages 90~91)

How to use the DVD Recorder

Step 1 Select the disc type

This unit can record on the following types of discs.
If you want to repeatedly record on the same disc or you want to edit the disc after recording, select a rewritable DVD-RW or DVD-RAM type disc.
If you want to save recording without any change, choose a non-rewritable DVD-R.

DVD RAM DVD RW DVD R

English

Step 2 Format the disc to start recording

Unlike a VCR, the recorder automatically starts formatting when an unused disc is inserted. This is required or the preparation of recording on a disc.

Using a DVD-RAM
This type of disc can be formatted in DVD-Video Recording format (VR mode).You can edit recorded image and create a playlist and edit images in a specific sequence according to your requirements.

Using a DVD-RW
This type of disc can be formatted in either DVD-Video format (Video mode) or DVD-Video Recording format (VR mode). For an unused disc, a message that asks whether to format in VR Mode or not is displayed.
You can play a Video mode disc on various DVD components. A VR mode disc allows more varied editing.

Using a DVD-R
This type of disc can be formatted in DVD Video format. After formatting is complete, you can record on the disc.You can play this type of discs on various DVD components only when they have been finalized.

NOTE
- You can only use one format on a DVD-RW.
- You can change the DVD-RW format to another format. It should be noted that the data of the disc may be lost when changing formats.

Step 3 Recording

There are two different recording methods, Direct Recording and Timer Recording. Timer recording is classified as recording type : Once, Daily or Weekly or recording mode : XP (high quality mode), SP (standard quality mode), LP (long recording mode), and EP (extended mode) according to the recording mode. When recording is set in the FR mode, the best quality picture is recorded with regards to the remaining time on the disc.

Step 4 Playing

You can select the title you want to play in a displayed menu and then immediately start playback.
A DVD consists of sections, called titles, and sub sections, called chapters.
During recording, a title is created between two points where you start and stop recording. DVD-R/DVD-RW discs (in Video mode) can automatically create chapters according to the recording mode when finalized.

Step 5 Editing a recorded disc

Editing on discs is easier than conventional video tapes. The recorder supports many different edit functions, possible only with DVDs.
With a simple and easy edit menu, you can operate various edit functions, such as delete, copy, rename, lock, etc., on a recorded title.

Creating a playlist (DVD-RAM/-RW in VR mode)
With this recorder, you can create a new playlist on the same disc and edit it without the change of the original recording.

Step 6 Finalizing & Playing on other DVD components

To play your DVD on other DVD components, finalizing may be necessary. First, finish all editing and recording operations, then finalize the disc.

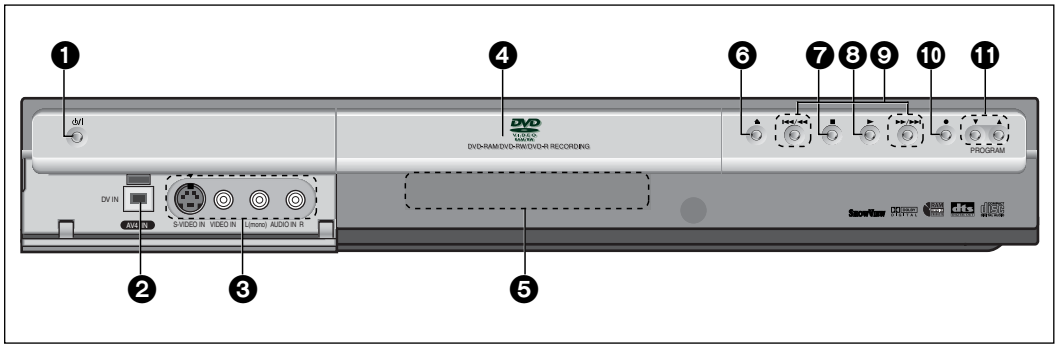
When using a DVD-RW disc in VR Mode
Although finalizing is generally unnecessary when playing the disc on a VR Mode compatible component, a finalized disc should be used for playback on that type of component.

When using a DVD-RW disc in Video Mode
The disc should be finalized first to enable playback on anything other than this recorder. No more editing or recording can be made on the disc once it has been finalized.

When using a DVD-R disc
You should finalize the disc to play it on a component other than this recorder.You cannot edit or record on the disc once it has been finalized.

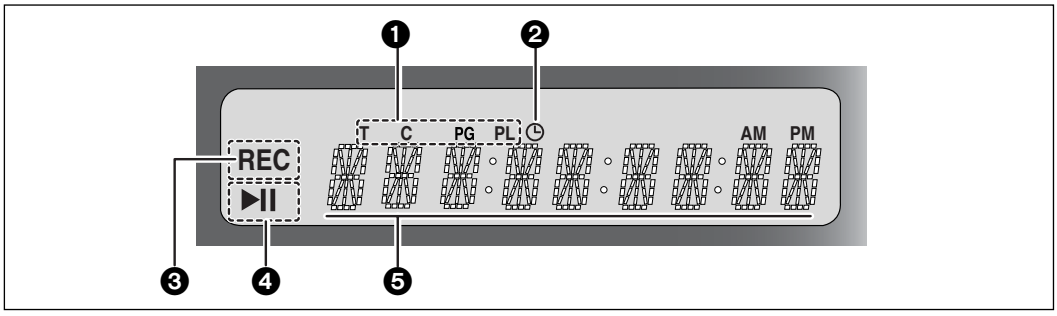
Description

Front Panel



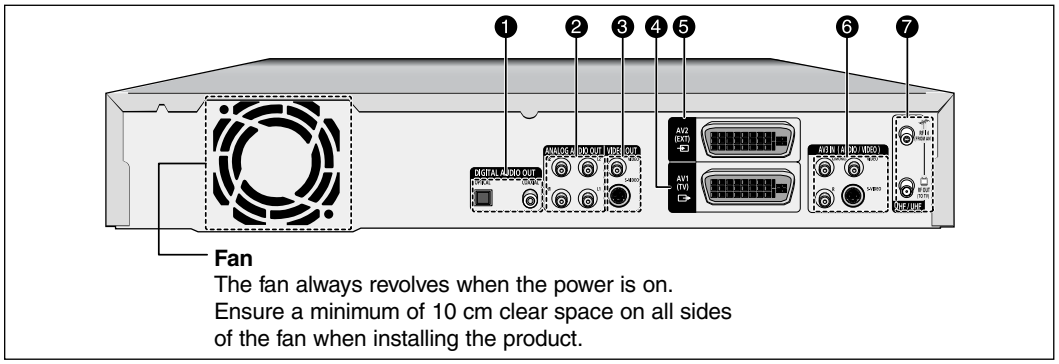
1. **STANDBY/ON**
   Turns the recorder on and off.
   Press to turn the power on and off. (As to the indication of the Operate switch, " I " shows ON and "⏻" shows electrical power stand-by.)
2. **DV-IN**
   Connects external digital equipment with a DV jack.
3. **AV4 IN**
   Connects external equipment.
4. **DISC TRAY**
   Opens to accept a disc.
5. **DISPLAY**
   Displays the playing status, title/ chapter/ time, etc.
6. **OPEN/CLOSE**
   Opens and closes the disc tray.
7. **STOP**
   Stops disc playback.
8. **PLAY/PAUSE**
   Plays a disc or pauses playback.
9. **SEARCH**
   Goes to the next title/chapter/track, or goes back to the previous title/chapter/track.
10. **REC**
    Starts recording.
11. **PROGRAM**
    Select TV preset channels.
    Same as PROG buttons in remote control.

Front Panel Display



1. This lights to indicate the names of the sections of the disc being played.
2. Lights to indicate the timer recording mode.
3. Lights in the record mode.
4. Lights in the playback/pause mode.
5. Displays the title, chapter, title list or playlist number and displays the message during playback.

Rear Panel



❶ **DIGITAL AUDIO OUT**
Connects to an amplifier having a digital input jack.

❷ **ANALOG AUDIO OUT**
Connects to the audio input of external equipment using audio cables.

❸ **VIDEO OUT**
Connects the input of external equipment using a Video or S-Video cable.

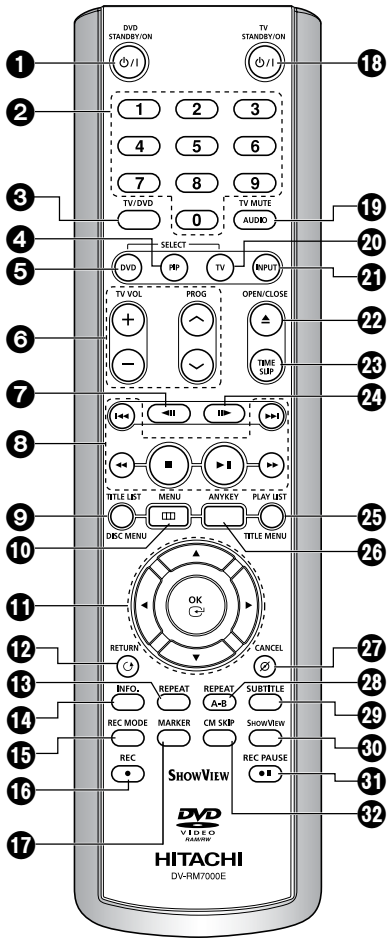
❹ **AV1(TV) OUTPUT SCART**

❺ **AV2(EXT) INPUT SCART**

❻ **AV3 IN(AUDIO/VIDEO)**
Connects the output of external equipment using an audio/video or S-Video cable.

❼ **VHF/UHF**
Connects antenna cables.

Tour of the Remote Control



❶ **DVD STANDBY/ON Button**
Press to turn the power on and off. (As to the indication of the Operate switch, " I " shows ON and "⏻" shows electrical power stand-by.)

❷ **Number Buttons**

❸ **TV/DVD Button**

❹ **PIP Button**
Use to watch a sub program on the PIP screen while watching the main program on the main screen.

❺ **DVD Button**
Press this when you use a DVD.

❻ **TV Control Buttons**
- TV VOL Button
  TV volume adjustment
- PROG Button
  Allows you to program a specific order. Same as PR buttons in Front panel.

❼ **REVERSE STEP Button**
Each press of this button will play one-frame reverse.

❽ **Playback-related buttons**
Search, Skip, Stop, Play/Pause

❾ **TITLE LIST/DISC MENU Button**
Use this to enter the View Recording list/Disc menu.

❿ **MENU Button**
Brings up the DVD recorder's setup menu.

⓫ **OK/DIRECTION Buttons**

(UP/DOWN or LEFT/RIGHT Buttons)

This button functions as a toggle switch.

⓬ **RETURN Button**
Returns to a previous menu.

⓭ **REPEAT Button**
Allows you to repeat a title, chapter, track or disc.

⓮ **INFO. Button**
This will display current settings or disc status.

⓯ **REC MODE Button**
This will display the recording status.

⓰ **REC Button**
Use to make a recording on DVD-RAM/-RW/-R discs.

⓱ **MARKER Button**
Use this to bookmark a position while playing a disc.

⓲ **TV STANDBY/ON Button**

⓳ **AUDIO/TV MUTE Button**
Use this to access various audio functions on a disc. (DVD mode)
This operates as Sound Mute. (TV mode)

⓴ **TV Button**
Press this to operate TV.

㉑ **INPUT Button**
Select line input signal in external input mode. (Tuner or Line input)

㉒ **OPEN/CLOSE Button**
To open and close the disc tray.

㉓ **TIME SLIP Button**
The Time Slip function allows you to view a recorded program through the PIP window at least 10 seconds after recording starts. Playback and recording can be done at the same time.

㉔ **FORWARD STEP Button**
Each press of this button will play one-frame forward.

㉕ **PLAY LIST/TITLE MENU Button**
Use this to return to the Title menu, or to view the recorded files list.

㉖ **ANYKEY Button**
Use this to view the status of the disc that is being played.

㉗ **CANCEL Button**

㉘ **REPEAT (A-B) Button**
Press to repeat between A-B disc.

㉙ **SUBTITLE Button**
Press this to switch the DVD's subtitle language.

㉚ **SHOWVIEW Button**
Press to make a timer recoding of a program by entering the programs SHOWVIEW number.

㉛ **REC PAUSE Button**
Use this to pause during recording.

㉜ **CM SKIP Button**
When a program recorded on a DVD-RAM, a DVD-RW, a DVD-R or DVD-Video is played, the unit can be set to automatically skip a portion of the program.

Connecting & Setting Up

This section involves various methods of connecting the DVD recorder to other external components and required initial setting modes.

Quick Overview 14
Step 1 : Unpacking 15
Step 2 : Connecting SCART Cable...15
Step 3 : Other type of connecting the Video output cable.....17
Step 4 : Other type of connecting the Audio output cable.....18
Step 5 : Connecting to AV 3, AV 4, DV input jack.....19
Step 6 : Connecting the Power cord.....20
Step 7 : Preparing the Remote Control.....21

Quick Overview

A Quick Overview presented in this guide will give you enough information to start using the recorder.

Step 1 : Unpacking

▼

Step 2 : Connecting SCART Cable

▼

Step 3 : Other type of connecting the Video output cable

▼

Step 4 : Other type of connecting the Audio output cable

▼

Step 5 : Connecting to AV 3, AV 4, DV input jack

▼

Step 6 : Connecting the Power Cord

▼

Step 7 : Preparing the Remote Control

Step 1: Unpacking

Accessory

Check for the supplied accessories below.

- Video/Audio Cable
- RF Cable for TV
- Remote Control
- Batteries for Remote Control (AAA Size)
- Instruction Manual

Dispose of batteries according to local environmental regulations. Do not put them in the household trash.

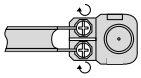
Step 2: Connecting SCART Cable

There are several ways to connect your DVD Recorder using scart cables.
The AV1 connector can output both video signal (composite video, RGB video) and audio signal (stereo analog).
The AV2 connector accepts (composite video, RGB video) and audio signal (stereo analog).
The AV1 connector accepts composite video and audio signal.
The AV2 connector can output composite video and audio signal.
Select one of the following connections that best suits you.

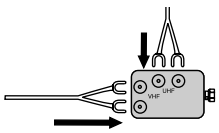
- Method 1: Antenna + DVD Recorder + TV
- Method 2: Antenna + VCR/satellite receiver/cable box + DVD Recorder + TV
- Method 3: Antenna + DVD Recorder + external decoder box + TV

NOTE

- If a SCART cable is plugged into the AV1 (TV) output SCART connector, any device plugged into the AV3 IN (AUDIO/VIDEO) jacks will be unusable: Use the AV4 IN jacks on the front panel.
- If you are using an off-air antenna that has 300-ohm twin flat leads, use an external antenna connector (300-75 ohm adaptor: not supplied) to connect the antenna to the DVD Recorder.



- If you have two separate antennas (one VHF and the other UHF), use a UHF/VHF combiner-adaptor (available at most electronics shops) to connect the antenna to the DVD Recorder.



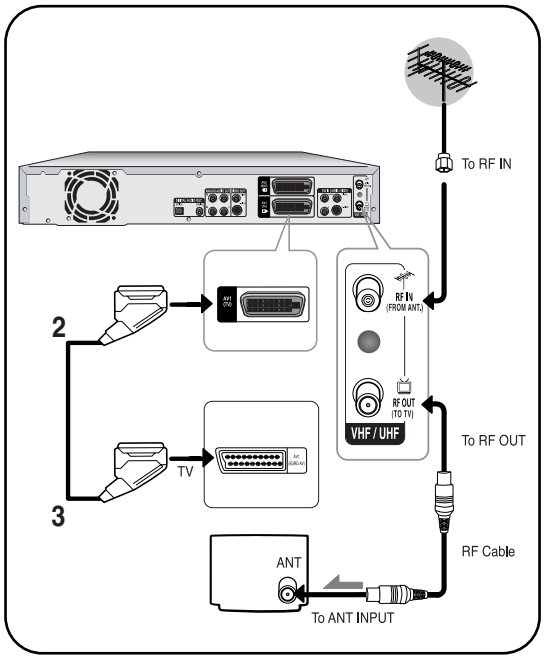
- The VHF/UHF RF OUT jack of this product sends only signals received through the antenna. It does not output audio/video signals.You must connect audio/video cables to view Video from the unit. (i.e. DVD playback)

Method 1: Antenna + DVD Recorder + TV

You can connect your DVD Recorder to the television using the SCART cable if the appropriate input is available on the television.You thus:

- Obtain better quality sound and pictures
- Simplify the setting up procedure of your DVD Recorder

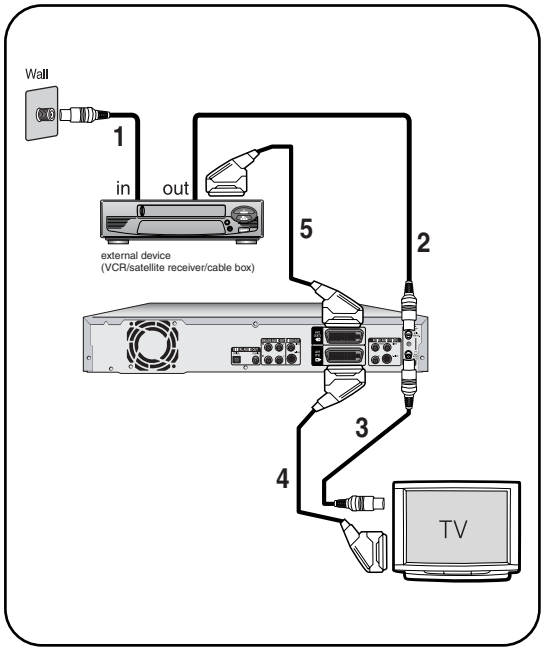
1. Connect the coaxial cable as shown.
2. Connect one end of the SCART cable to the AV1 socket on the rear of the DVD Recorder.
3. Plug the other end into the appropriate connector on the television.



NOTE

- Regardless of the type of connection chosen, you must always connect the coaxial cable supplied. Otherwise, no picture will be visible on the screen when the DVD Decorder is switched off.
- Make sure that both the television and the DVD Recorder is switched off before connecting the cables.
- If you want to record one channel while watching another channel on TV screen, press TV/DVD button.

Method 2: Antenna + VCR/satellite receiver/cable box + DVD Recorder + TV

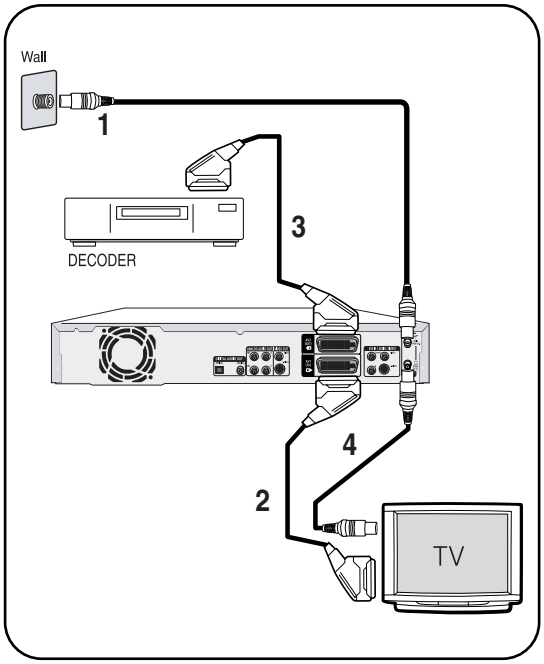


Before making or changing any rear panel connections, make sure that all components are switched off and unplugged from the wall outlet.

1. Connect the cable from the antenna/cable TV outlet to the antenna input on your VCR/satellite receiver/cable box.
2. Connect the antenna output of your VCR/satellite receiver/cable box to the ANTENNA IN of DVD-Recorder using antenna cable.
3. Use another RF antenna cable to connect the ANTENNA OUT of DVD-Recorder to the antenna input on your TV.
4. Connect the AV1 connector on DVD-Recorder to the SCART AV connector on TV using a SCART cable.
5. Connect the AV2 connector to a SCART AV connector on VCR/satellite receiver/cable box.
6. Setup “AV1 Out option” using on-screen menu. Refer to page 30.

Method 3: Antenna + DVD Recorder + external decoder box + TV

If you connect external decoder box to DVD recorder, you can record scrambled channels received through the built-in TV tuner in DVD-Recorder.



1. Connect RF antenna cables as shown.
2. Connect the AV1 connector on this recorder to the SCART AV connector on TV using a SCART cable.
3. Connect the AV2 connector to a SCART AV connector on decoder box.
4. Set channel decoding function on using on-screen menu. Refer to page 27.

Step 3: Other type of connecting the Video output cable

There are several ways to output video signal not using SCARTcables. Select one of the following video connecting that best suits you below.

- **Method 1:** Connecting to a Composite Video output jack
- **Method 2:** Connecting to an S-video output jack

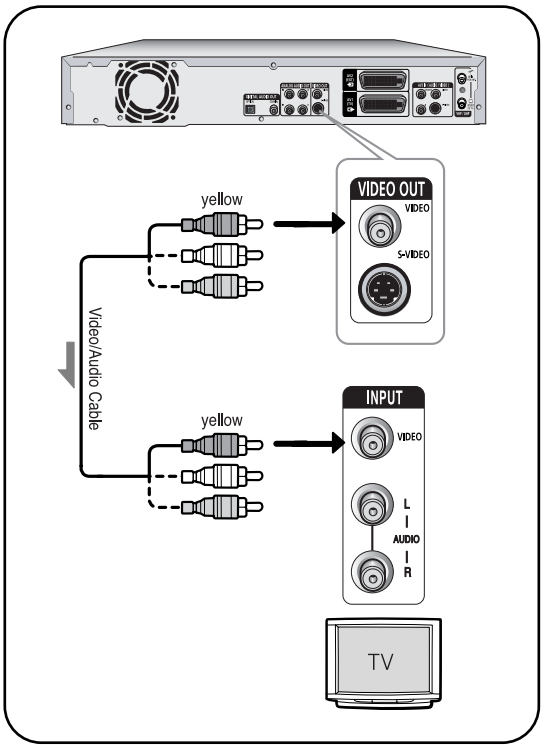
S-Video Output Modes

- S-Video output are available only if your TV supports S-Video input. If S-Video output does not work, check the TV connections and the TV input selection settings. (For information on how to connect to a TV, see pages 15 to 16.)

Method 1: Connecting to a Composite Video output jack

Connect a video(yellow) cable between the VIDEO (yellow) OUT jack on DVD Recorder and VIDEO (yellow) IN jack on the TV (or AV amplifier).

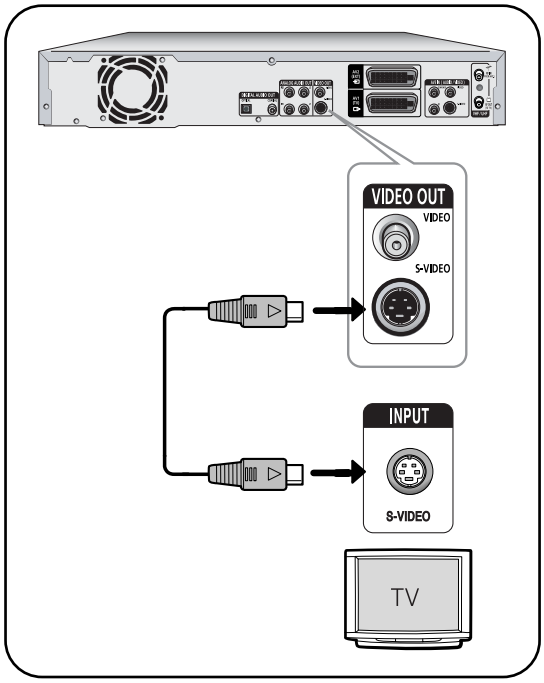
- You will enjoy regular quality images.
- Connect audio cables (white and red) between the ANALOG AUDIO OUT jacks on the DVD Recorder and AUDIO IN jacks on TV (or AV amplifier). (See page 18)



Method 2: Connecting to an S-video output jack

Connect an S-video cable (not supplied) between the S-VIDEO OUT jack on DVD Recorder and S-VIDEO IN jack on the TV (or AV amplifier).

- You will enjoy high quality images. S-Video separates the picture element into black and white (Y) and color (C) signals to present clearer images than regular video input mode.



Step 4: Other type of connecting the Audio output cable

There are several ways to output audio signal not using SCART cables. Select the audio connection that best suits you below.

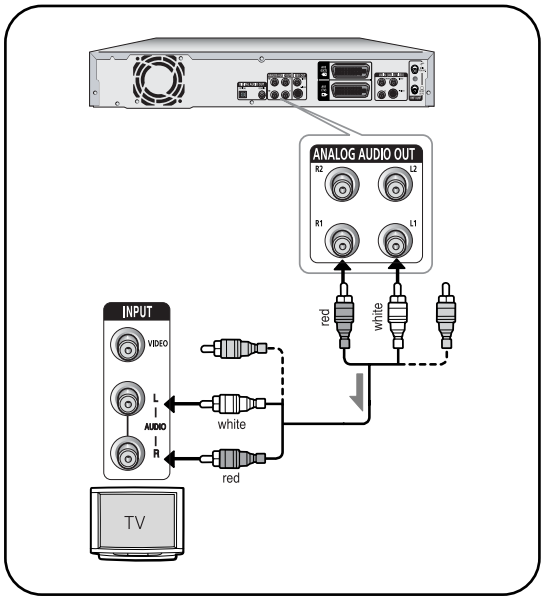
- **Method 1**: Connecting to your TV
- **Method 2**: Connecting to a stereo amplifier (analog audio out / digital audio out)
- **Method 3**: Connecting to an AV amplifier with a digital output jack

Manufactured under license from Dolby Laboratories. “Dolby” and the double-D symbol are trademarks of Dolby Laboratories.

“DTS” and “DTS Digital Out” are trademarks of Digital Theater Systems, Inc.

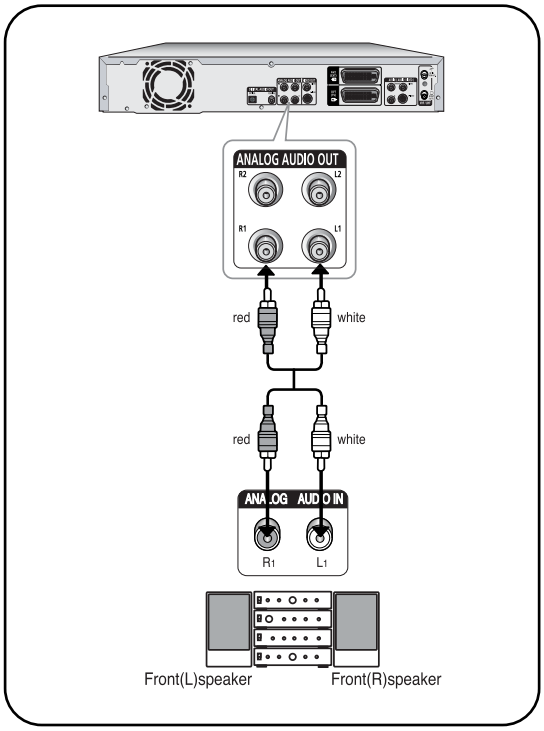
Method 1: Connecting to your TV

This connection will use your TV’s speakers.



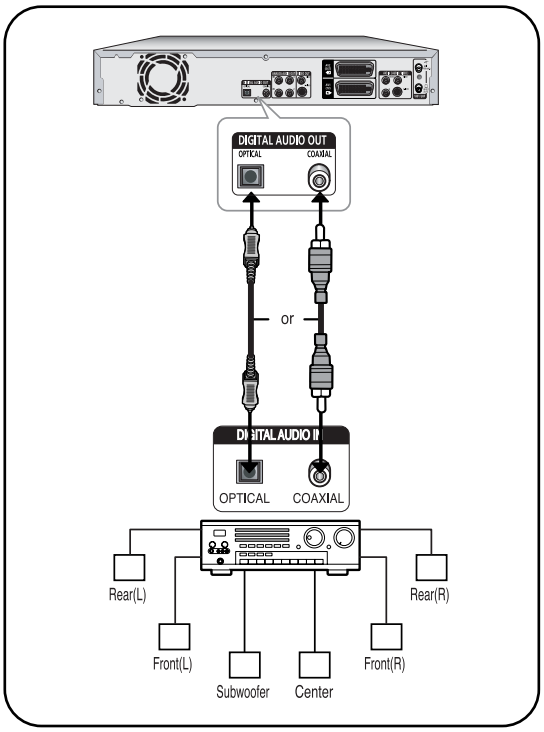
Method 2: Connecting to a stereo amplifier with analog output jacks

If your stereo amplifier only has audio input jacks (L and R), use the analog audio out jacks.



Method 3: Connecting to an AV amplifier with a digital output jack

If your AV amplifier only has a Dolby Digital, MPEG-2 or DTS decoder and a digital input jack, use this connection. To enjoy Dolby Digital, MPEG-2 or DTS sound, you will set up the audio settings. (See page 31, 32)



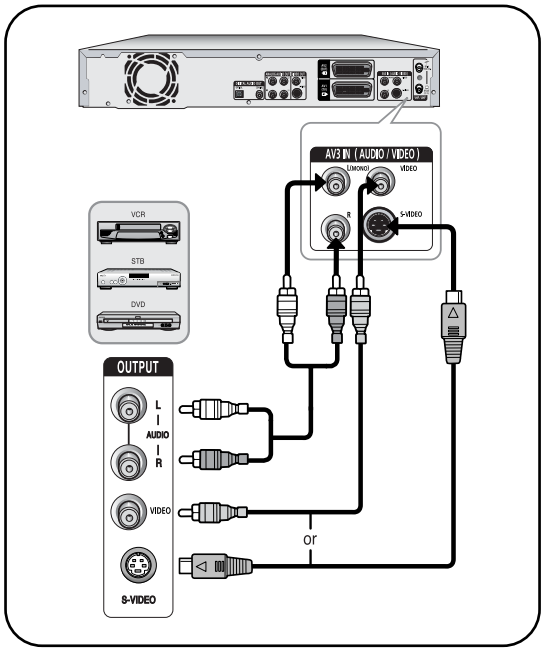
Step 5: Connecting to AV3, AV4, DV input jack

This allows you to connect your DVD Recorder to other external devices and view or record their outputs.

- **Method 1**: Connecting a VCR, Set-Top Box(STB) or DVD player to the AV3 Input jacks
- **Method 2**: Connecting a Camcorder to the AV4 Input jacks
- **Method 3**: Connecting a Camcorder to the DV IN jack

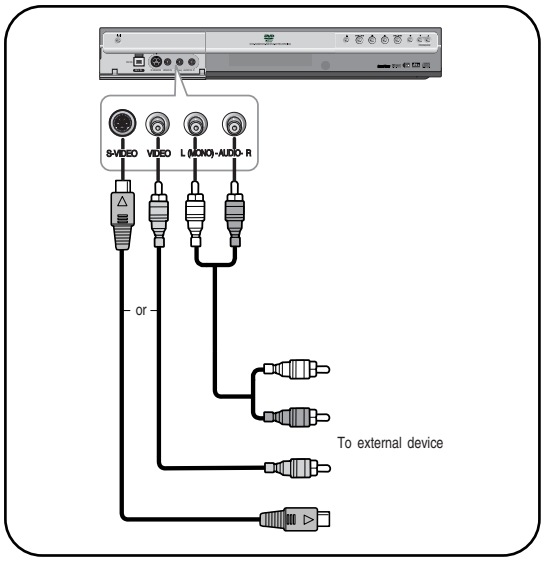
Method 1: Connecting a VCR, Set-Top Box (STB) or DVD player to the AV3 Input jacks

Connecting a VCR or external device to AV3 IN jacks of the DVD Recorder.
You can record from connected equipment (VCR, STB or DVD).



Method 2: Connecting a Camcorder to the AV 4 Input jacks

You can also use the AV 4 IN jacks on the front panel of the DVD Recorder. You can record from connected equipment.
When an input source is inserted into AV 4 while viewing TV, the input will be switched to AV 4 automatically.

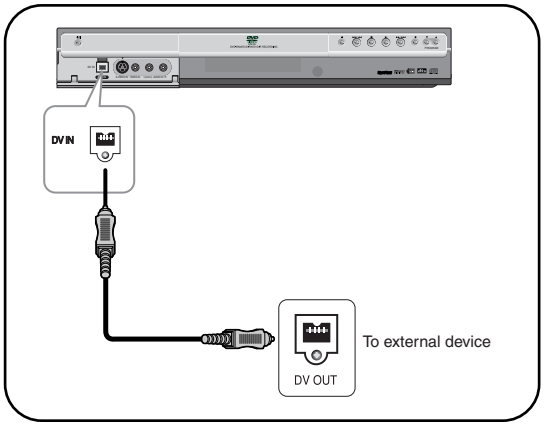


NOTE

- You can also use the AV4 IN jacks on the front panel of the DVD Recorder.
- When the S-Video jack and Video jack are both connected, the S-Video jack will have priority. AV IN Selection will be automatically done.
- Copy protected content cannot be recorded.

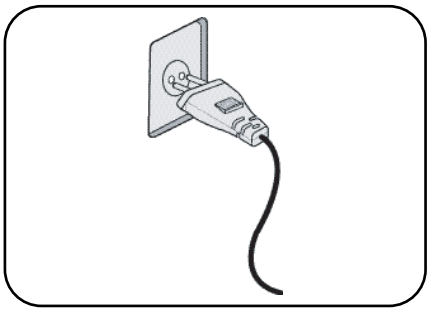
Method 3: Connecting a Camcorder to the DV IN jack

If your camcorder has a DV output jack, connect it to the DV input jack of your DVD Recorder.
With DVs, only input jacks can be used.



Step 6: Connecting the Power Cord

After all connections are complete, plug the power cord in the wall outlet.Your DVD Recorder will automatically set itself up. Refer to page 24.



Step 7: Preparing the Remote Control

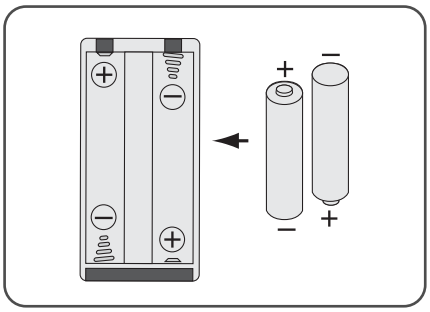
Install Batteries in the Remote Control

- Open the battery cover on the back of the remote.
- Insert two AAA batteries. Make sure that the polarities (+ and -) are aligned correctly.
- Replace the battery cover.

If remote does not operate properly:

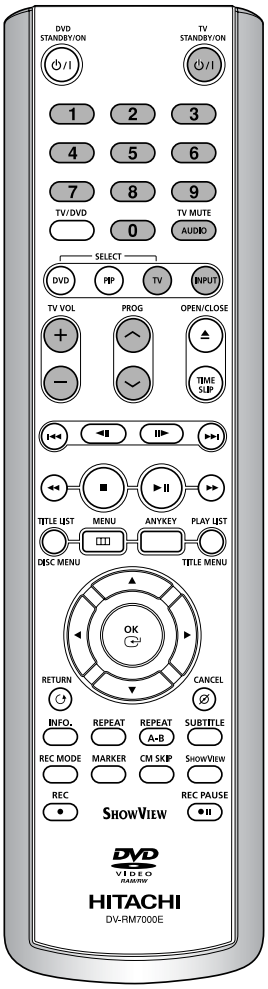
- Check the polarity + - of the batteries (Dry-Cell)
- Check if the batteries are drained.
- Check if remote sensor is blocked by obstacles.
- Check if there is any fluorescent lighting nearby.

Dispose of batteries according to local environmental regulations. Do not put them in the household trash.



Setting the Remote Control

Your DVD recorder remote control will work with Hitachi televisions and compatible brands.



English

To determine whether your television is compatible, follow the instructions below.

1. Switch your television on.
2. Point the remote control towards the television.
3. Hold down the TV STANDBY/ON button and enter the two-figure code corresponding to the brand of your television, by pressing the appropriate numeric buttons.

Controllable TV Codes

BRAND	BUTTON
BLAUPUNKT	TV STANDBY/ON +71
AIWA	TV STANDBY/ON +82
ANAM	TV STANDBY/ON +10,+11,+12,+13,+14,+15,+16,+17,+18
BANG & OLUFSON	TV STANDBY/ON +57
BRANDT	TV STANDBY/ON +73
BRIONVEGA	TV STANDBY/ON +57
CGE	TV STANDBY/ON +52
CONTINENTAL EDISON	TV STANDBY/ON +75
DAEWOO	TV STANDBY/ON +19,+20,+23,+24,+25,+26,+27,+28,+29,+30, +31,+32,+33,+34
EMESON	TV STANDBY/ON +64
FERGUSON	TV STANDBY/ON +73
FINLUX	TV STANDBY/ON +06,+49,+57
FORMENTI	TV STANDBY/ON +57
FUJITSU	TV STANDBY/ON +84
GRADIENTE	TV STANDBY/ON +70
GRUNDIG	TV STANDBY/ON +49,+52,+71
HITACHI	TV STANDBY/ON +60,+72,+73,+75
IMPERIAL	TV STANDBY/ON +52
JVC	TV STANDBY/ON +61,+79
LG	TV STANDBY/ON +06,+19,+20,+21,+22,+78
LOEWE	TV STANDBY/ON +06,+69
LOEWE OPTA	TV STANDBY/ON +06,+57
MAGNAVOX	TV STANDBY/ON +40
METS	TV STANDBY/ON +57
MITSUBISHI	TV STANDBY/ON +06,+48,+62,+65
MIVAR	TV STANDBY/ON +52,+77
NEC	TV STANDBY/ON +83
NEWSAN	TV STANDBY/ON +68
NOBLEX	TV STANDBY/ON +66
NOKIA	TV STANDBY/ON +74
NORDMENDE	TV STANDBY/ON +72,+73,+75
PANASONIC	TV STANDBY/ON +53,+54,+74,+75
PHILIPS	TV STANDBY/ON +06,+55,+56,+57
PHONOLA	TV STANDBY/ON +06,+56,+57
PIONEER	TV STANDBY/ON +58,+59,+73,+74
RADIOLA	TV STANDBY/ON +06,+56
ADIOMARELLI	TV STANDBY/ON +57
RCA	TV STANDBY/ON +45,+46
REX	TV STANDBY/ON +74
SABA	TV STANDBY/ON +57,+72,+73,+74,+75
SALORA	TV STANDBY/ON +74
SAMSUNG	TV STANDBY/ON +01,+02,+03,+04,+05,+06,+07,+08,+09
SANYO	TV STANDBY/ON +41,+42,+43,+44,+48
SCHNEIDER	TV STANDBY/ON +6
SELECO	TV STANDBY/ON +74
SHARP	TV STANDBY/ON +36,+37,+38,+39,+48
SIMENS	TV STANDBY/ON +71
SINGER	TV STANDBY/ON +57
SINUDYNE	TV STANDBY/ON +57
SONY	TV STANDBY/ON +35,+48
TELEAVA	TV STANDBY/ON +73
TELEFUNKEN	TV STANDBY/ON +67,+73,+75,+76
THOMSON	TV STANDBY/ON +72,+73,+75
THOMSON ASIA	TV STANDBY/ON +80,+81
TOSHIBA	TV STANDBY/ON +47,+48,+49,+50,+51,+52
WEGA	TV STANDBY/ON +57
YOKO	TV STANDBY/ON +6
ZENITH	TV STANDBY/ON +63

Result: If your television is compatible with the remote control, it will switch off.
It is now programed to operate with the remote control.

NOTE

■ If several codes are indicated for your television brand, try each one in turn until you find one that works.

You can then control the television using the following buttons.

Button	Function
TV STANDBY/ON	Used to switch the television on and off.
INPUT	Used to select an external source.
VOL + or -	Used to adjust the volume of the television.
PROG (∧ or ∨)	Used to select the required channel.
TV MUTE	Used to toggle the sound on and off.

NOTE

■ The various functions will not necessarily work on all televisions. If you encounter problems, operate the television directly.

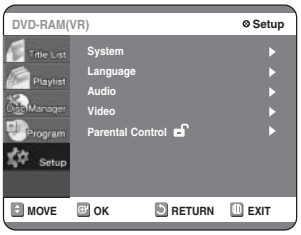
■ Press the TV button first in order to operate the INPUT, PROG and TV MUTE buttons.

System Setup

On-Screen Menu Navigation.....23
Plug & Auto Set up.....24
Clock Set.....25
Auto Setup 26
Manual Setup 27
CM Skip Time Setting 28
Setting Up NICAM Options.....29
Setting Up SCART Jack Options.....30
Setting Up the Language Features...30
Setting Up the Audio Options.....31
Setting Up the Display(Video) Options.....32
Setting Up the Parental Control.....33

On-Screen Menu Navigation

The on-screen menus allow you to enable or disable various functions on your DVD Recorder.
Use the following buttons to open and navigate through the on-screen menus.



1 MENU Button
Press this button on the remote control while the DVD Recoder is in Stop or Play mode to open the on-screen MAIN MENU. And you can exit the on-screen MENU all together.

2 Up/Down and Left/Right
Use these buttons to move the selection bar up/down and left/right to cycle through the menu options.

3 OK Button
Press this button on the remote control to confirm any new settings.

4 RETURN Button
Press this button on the remote control to return to the last MENU screen displayed.

Plug & Auto Set up

Your DVD-Recorder will automatically set itself up when it is plugged in for the first time. TV stations and clock will be stored in memory. The process takes a few minutes. Your DVD Recorder will then be ready for use.

1 Connect the coaxial cable as indicated on page 15.

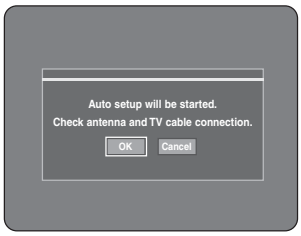
(Connecting Your DVD-Recorder to the TV using the Coaxial Cable)

2 Plug the DVD-Recorder in.

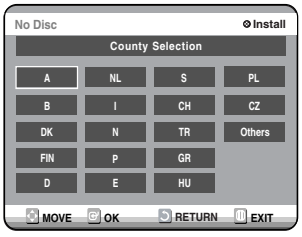
3 Press a Number button to select the language.

Press 1 for English
Touche 2 pour Français
Drücken Sie 3 für Deutsch
Pulse 4 para Español
Premere 5 per Italiano
Druk op 6 voor Nederlands

4 Start the auto setup.



5 Select "Country" using the ▲▼◄► buttons to select your country.

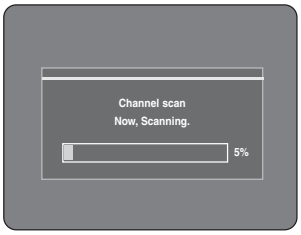


• Refer to following abbreviation table when selecting "Country".

A (Austria)	NL (Netherlands)	S (Sweden)	PL (Poland)
B (Belgium)	I (Italy)	CH (Swiss)	CZ (Czech)
DK (Denmark)	N (Norway)	TR (Turkey)	Others
FIN (Finland)	P (Portugal)	GR (Greece)	
D (Deutschland)	E (Spain)	HU (Hungary)	

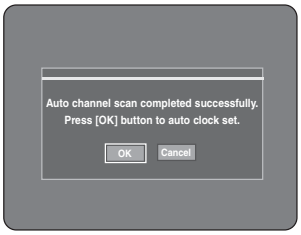
• The DVD-Recorder searches for the stations according to a preset preference list corresponding to the country that you have selected.

6 Auto Channel scan will be started.



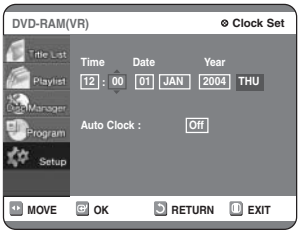
• The number of stations automatically stored by the DVD-Recorder depends on the number of stations that it has found.

7 Start ACS (Auto Clock Setting) when Auto Channel scan is completed.



8 Wait until current date and time are displayed automatically. If you want to exit Auto clock setting, press MENU button.

9 Check the date and time.



- If it is correct, press OK then the date and time will be saved.
- If it is incorrect, input correct Time, Date, Year using navigation ▲▼◄ ► buttons or number button. Press OK then the date and time will be saved. When you need to change clock setting, you can set up it manually. (See page 25)

NOTE

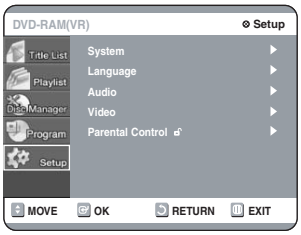
■ Now, DVD-Recorder is ready for use. Function for "Plug & Auto Set Up" is fixed already. So if you want to change this fixed one, you can change it by Presetting the Stations in OSD "Manual Setup" menu. (See page 27)

Clock Set

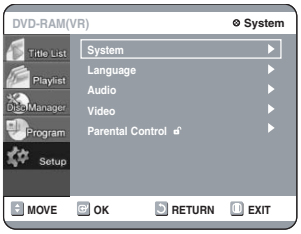
This menu is used to set the current time.
You need to set the time to use timer recording.

1 With the unit in stop mode, press the MENU button.

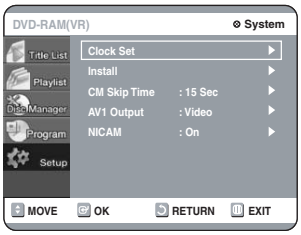
2 Using the ▲▼ buttons, move the selection bar to "Setup" then press OK to select.



3 Select "System" the ▲▼ buttons, then press the ► or OK button.



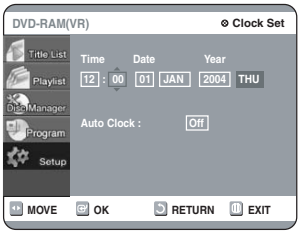
4 Select "Clock Set" using the ▲▼ buttons, then press the ► or OK button.



5 Use navigation ▲▼◄ ► buttons to input Time, Date, Year. Use number button to input clock data directly.

English

6 Set Auto clock tap “On” or “Off” using the ▲▼ button.



7 Press OK then the date and time will be saved. If you press RETURN button, it will not be saved.

NOTE

- You must have the antenna connected to set the Auto Clock.
  See page 15 Connections.
- Auto Clock : The Clock will be automatically set when you turn off the recorder.

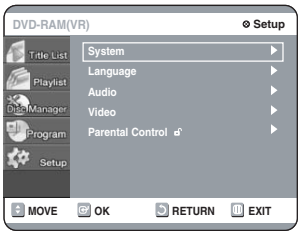
Auto Setup

This feature allows you to manually set the DVD Recorder tuner band to Antenna or Cable, whichever you connected to the Antenna In jack during initial setup.

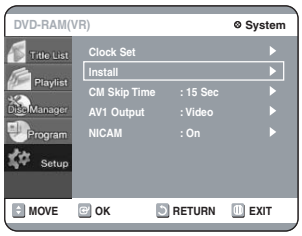
1 With the unit in stop mode, press the MENU button on the remote.

2 Using the ▲▼ buttons, move the selection bar to “Setup” then press OK to select.

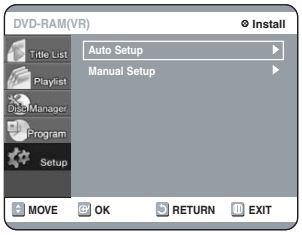
3 Using the ▲▼ buttons, move the selection bar to “System” then press OK to select.



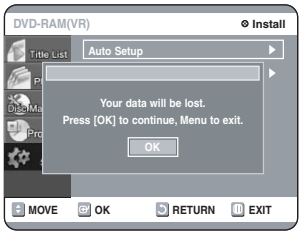
4 Using the ▲▼ buttons, move the selection bar to “Install”, then press OK to select.



5 **Move the selection arrow to "Auto Setup" then press ► button to select from the following options.**

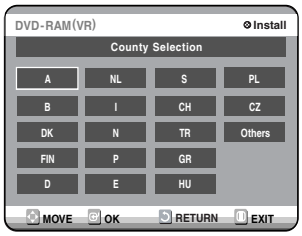


6 **Press OK to continue.**
If you want to exit, press MENU button.



7 **Press the ▲▼◄► buttons to select your "Country".**

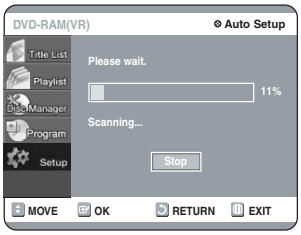
- The DVD Recorder searches for the stations according to a preset preference list corresponding to the country that you have selected.



Refer to following table when selecting your country.

A (Austria)	NL (Netherlands)	S (Sweden)	PL (Poland)
B (Belgium)	I (Italy)	CH (Swiss)	CZ (Czech)
DK (Denmark)	N (Norway)	TR (Turkey)	Others
FIN (Finland)	P (Portugal)	GR (Greece)	
D (Deutschland)	E (Spain)	HU (Hungary)	

8 **Channel scan will be started. Select "Stop" using OK button to exit.**

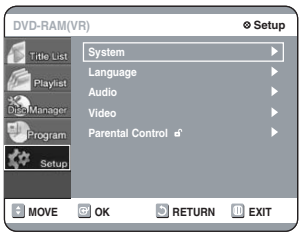


Manual Setup

Use this feature if Auto Channel Search missed a channel that you would like to add and delete a channel you wish to remove.

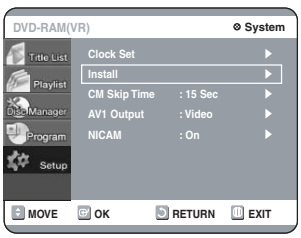
1 **With the unit in stop mode, press the MENU button on the remote.**

2 **Using the ▲▼ buttons, move the selection bar to "Setup" then press OK to select.**

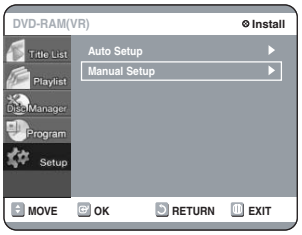


3 **Using the ▲▼ buttons, move the selection bar to "System" then press OK to select.**

4 **Using the ▲▼ buttons, move the selection bar to "Install", then press OK to select.**

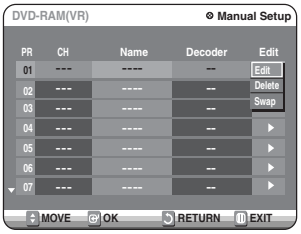


5 **Move the selection bar to "Manual Setup", then press OK to select.**

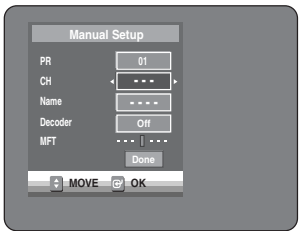


6 **Press the ▲▼ buttons to select a PR (program) you wish to edit, delete, or swap. And then press OK button.**

7 **Select Edit, Delete, or Swap.**



• In case of Edit : you can add or edit PR (program)



- CH: Tune the channel using ◄► buttons or number buttons.
- Name: Display station name automatically detected in broadcasting signal. If not detected, you can edit name by using ▲▼◄► buttons.
- Decoder: If you set on, you can record scrambled channels using external decoder box. Before setting on, refer to connecting external decoder box in the page 16.
- MFT: You can tune up the channel frequency better using ◄► button.

• In case of Delete: the channel information of selected PR (program) will be removed.

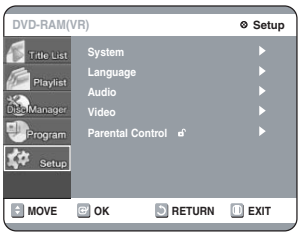
• In case of Swap: you can swap the channel information of two PR (programs). For example, if you wish to swap PR2 and PR5, select swap at PR2, then press OK button or ► button at PR5.

CM Skip Time Setting

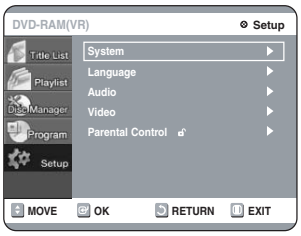
When a program recorded on a DVD-RAM, a DVD-RW, or a DVD-R is played, the unit can be set to automatically skip a portion of the program corresponding to a CM (commercial) Skip Time set by the user.
The program can then be played from a point after the CM Skip Time. If the CM Skip button is pressed while a DVD disc is played, an instant skip function is performed for the set CM Skip Time.

1 **With the unit in stop mode, press the MENU button on the remote control.**

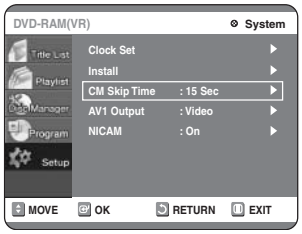
2 **Select Setup using the ▲▼ buttons, then press the ► or OK button.**
You can't use the Setup functions while playing a disc.



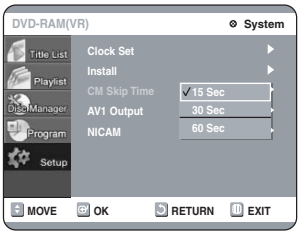
3 **Select System using the ▲▼ buttons, then press the ► or OK button.**
System menu will be displayed.



4 **Select CM Skip Time using the ▲▼ buttons, then press the ► or OK button.**



5 **Select the desired time using the ▲▼ buttons, then press the ► or OK button.**



6 **If you press the CM SKIP button, the section corresponding to the set time is skipped, and then the next section is played.**

NOTE

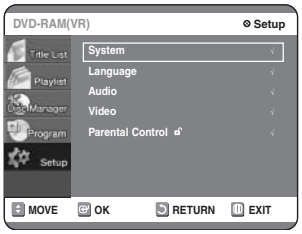
- CM Skip can be performed only during normal playback.
- When the time set is less than a remaining time of a current title: The next title is played from the beginning.
- When the time set is less than a remaining time of a play list, the next scene is played.
- CM Skip is not performed with respect to a still picture.
- When a set time is less than a remaining time of a scene, a last title, or a last track that is displayed currently, a prohibition mark appears.
- When the time set is less than the remaining time of the currently displayed track, title or scene, a prohibition mark appears.
- CM Skip releases Repeat (including Repeat A-B, Chapter, and Title).
- This may not operate with some DVD-Video discs.

Setting Up NICAM Options

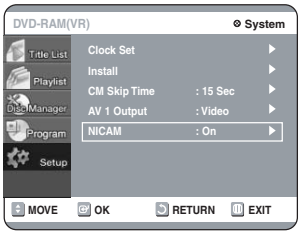
NICAM programs are divided into 3 types. NICAM Stereo, NICAM Mono and Bilingual (transmission in another language). NICAM programs are always accompanied by a standard mono sound broadcast and you can select the desired sound by setting NICAM on or off.

1 **With the unit in stop mode, press the MENU button on the remote.**

2 **Select "Setup" using ▲▼ buttons, then press the ► or OK button.**



3 **Using the ▲▼ buttons, move the selection bar to "System" then press ► or OK to select.**



4 **Using the ▲▼ buttons, move the selection bar to "NICAM" then press ► or OK to select.**

5 **Using the ▲▼ and OK buttons, select "On" or "Off".**

- **Off:** Only set at this position to record the standard mono sound during a NICAM broadcast if the stereo sound is distorted due to inferior reception conditions.
- **On:** NICAM mode

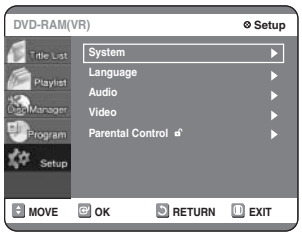
Setting Up SCART Jack Options

If you connect external device (VCR/satellite receiver/cable box) or TV to DVD Recoder with SCART Jack (21pin), you need to set this option.

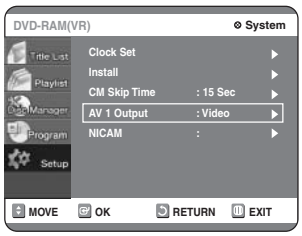
1 **With the unit in stop mode, press the MENU button on the remote.**

2 **Select "Setup" using ▲▼ buttons, then press the ► or OK button.**

3 **Using the ▲▼ buttons, move the selection bar to "System" then press ► or OK to select.**



4 **Using the ▲▼ buttons, move the selection bar to "AV1 Output" then press ► or OK to select.**



5 **Using the ▲▼ and OK buttons, select "Video" or "RGB" to suit the AV terminal of TV.**

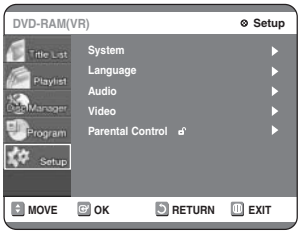
- AV2 input option will be set automatically according to the signal of external device (VCR/satellite receiver/cable box).

Setting Up the Language Features

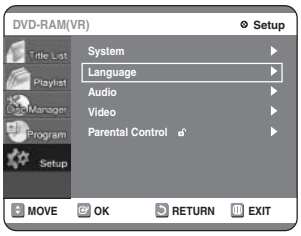
If you set the player menu, disc menu, audio and subtitle language in advance, they will come up automatically every time you watch a movie.
If the selected language is not recorded on the disc, the original pre-recorded language is selected.

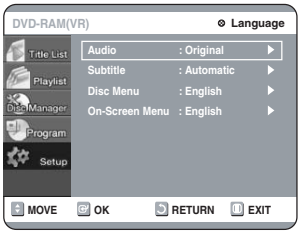
1 **With the unit in stop mode, press the MENU button on the remote control.**

2 **Select Setup using the ▲▼ buttons, then press the ► or OK button.**
You can't use the Setup functions during disc playback.



3 **Select Language using the ▲▼ buttons, then press the ► or OK button.**
Language setup menu will be displayed.





4 **Use the ▲▼ buttons to select the desired sub menu and press the OK or ► button.**

- **Audio Language**: For the speaker sound.
- **Subtitle Language**: For the disc subtitles.
- **Disc Menu Language**: For the disc menu contained on the disc.
- **On-Screen Menu**: For the on-screen menu of your DVD recorder.

5 **Select the desired Language using the ▲▼ buttons, then press the ► or OK button.**

NOTE

- Press the RETURN or ◄ button to return to the previous menu.
  Press the MENU button to exit the menu.
- The selected language will only appear if it is supported on the disc.

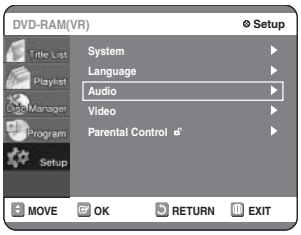
Setting Up the Audio Options

Allow you to setup the Audio device and sound status depending on the audio system in use.

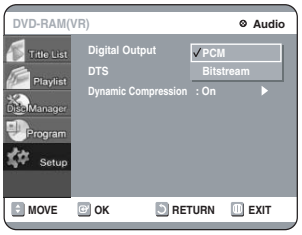
1 **With the unit in stop mode, press the MENU button on the remote.**

2 **Select "Setup" using ▲▼ buttons, then press the ► or OK button.**

3 **Select "Audio" using ▲▼ buttons, then press the ► or OK button. Audio setup menu will be displayed.**



4 **Use ▲▼ buttons to select the desired sub menu and press the OK or ► button.**



5 **Use the ▲▼ buttons to select the desired item. Then press the ► or OK button.**

NOTE

- Press the RETURN or ◄ button to return to the previous menu. Press the MENU button to exit the menu.

Digital Output

1. PCM: Select this when you have no equipment that can decode Dolby Digital (or MPEG-2) signal.
   When you play Dolby Digital (or MPEG-2) sound track, the digital output are converted to PCM Stereo.
2. Bitstream: Output Dolby Digital (or MPEG-2) audio as bitstream. Select this when your AV receiver or AV amplifier have Dolby Digital (or MPEG-2) Decoder.

NOTE

- Digital output setting is equally applied to both Dolby Digital and MPEG-2 audio. LPCM sound track is always outputted as PCM. It has no relation with Digital Output setting.
- Be sure to select the correct Digital Output or you will hear no sound or big noise.

DTS

1. Off: Doesn't output DTS signal.
Select this when your AV receiver or AV amplifier does not have DTS decoder.

2. On: Outputs DTS Bitstream via digital output when you play DTS track.
Select this only when your AV receiver (or AV amplifier) have DTS decoder.

NOTE

- When DTS soundtrack is played, sound is not output from Analog Audio Output.

Dynamic Compression

Dynamic Range Compression : This is only active when a Dolby Digital signal is detected.

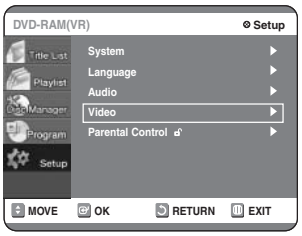
- **On:** When the Movie-soundtracks are played at low volume or from smaller speakers, the system can apply appropriate compression to make low-level content more intelligible and prevent dramatic passages from getting too loud.
- **Off:** You can enjoy the movie with standard Dynamic Range.

Setting Up the Display (Video) Options

This function allows you to setup the TV screen settings.

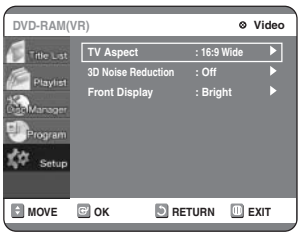
1 **With the unit in stop mode, press the MENU button on the remote. You can't use the Setup functions during playback.**

2 **Select "Setup" using ▲▼ buttons, then press the ► or OK button.**



3 **Select "Video" using ▲▼ buttons, then press the ► or OK button. Video setup menu will be displayed.**

4 **Use ▲▼ buttons to select the desired sub menu and press the OK or ► button.**



5 **Use the ▲▼ buttons to select the desired item. Then press the ► or OK button.**

NOTE

- Press the RETURN or ◄ button to return to the previous menu. Press the MENU button to exit the menu.

Display (Video) Options

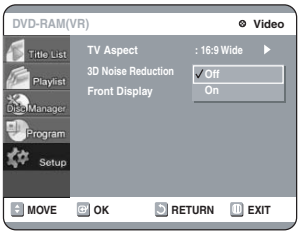
This function depends on disc type. It may not work for some disc types.

TV Aspect

Depending on the type of television you have, you may want to adjust the screen setting. (aspect ratio)

- **4:3 Letter Box**: Select when you want to see the total 16:9 ratio screen DVD supplies, even though you have a TV with a 4:3 ratio screen. Black bars will appear at the top and bottom of the screen.
- **4:3 Pan - Scan**: Select this for conventional size TV when you want to see the central portion of the 16:9 screen. (Extreme left and right side of movie picture will be cut off.)
- **16:9 Wide**: You can view the full 16:9 picture on your wide-screen TV.

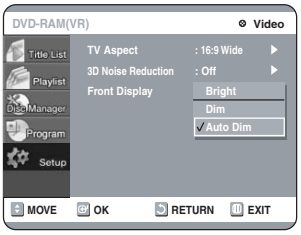
3D Noise Reduction (motion adaptive noise reduction)



- **On**: Provides a cleaner picture through noise reduction (for recording).
- **Off**: Normal

Front Display

Adjust the brightness of the unit's front panel display.



- **Auto Dim:** Makes the Front Panel Display dim automatically when playing a DVD.
- **Dim:** Makes the Front Panel Display dim.
- **Bright:** Makes the Front Panel Display bright.

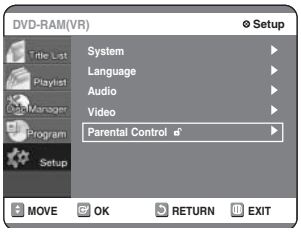
Setting Up the Parental Control

The Parental Control function works in conjunction with DVDs that have been assigned a rating - which helps you control the types of DVDs that your family watches. There are up to 8 rating levels on a disc.

1 **With the unit in stop mode, press the MENU button on the remote.**

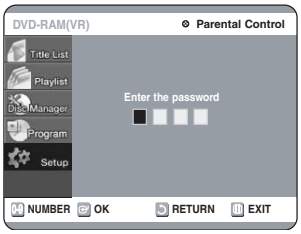
2 **Select "Setup" using ▲▼ buttons, then press the ► or OK button.**

3 **Select "Parental Control" using ▲▼ buttons, then press the ► or OK button.**



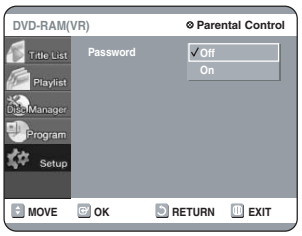
4 **Enter the 4-digit password using the 0 to 9 buttons on the remote.**

- The 'Confirm the password.' message will be displayed. Enter your password again.



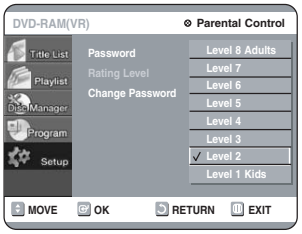
English

5 Select “Password On/Off” using ► and ▲▼ buttons.



6 Select “Rating Level” you want using ▲▼ buttons, then press the ► or OK button.

• For example, if you select up to Level 6, discs that contain Level 7, 8 will not play. Larger number indicates the program is more intended to adult use only.



NOTE

■ Press the RETURN or ► button to return to the previous menu. Press the MENU button to exit the menu.

■ Refer to Troubleshooting if you have forgot your password.

About the Change Password

1 Select Change Password using ▲▼ buttons, then press the ► or OK button.

• The ‘Enter the password.’ message will be displayed.

2 Enter the 4-digit password using the 0 to 9 buttons on the remote.

• The ‘Confirm the password.’ message will be displayed.

3 Enter your password again using the 0 to 9 buttons on the remote.

NOTE

■ Press the RETURN or ◄ button to return to the previous menu. Press the MENU button to exit the menu.

Recording

This section shows various DVD recording methods.

Before Recording 35
Recording the current TV program you are watching 37
Recording from external equipment you are watching.....39
Reviewing Images Being Recorded (Time Slip).....40
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Making a Standard Timer.....42
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Deleting a Standard Timer 44
Using the SHOWVIEW Feature.....45
SHOWVIEW Extended 46
Flexible Recording (for Timer recording only).....47
Timer Recording Messages 47

Before Recording

This unit can record on various types of discs. Before recording, read the following instructions and select the disc type according to your preference.

Recordable discs

This recorder can record on the following discs.

DVD-RAM	DVD-RW	DVD-R
DVD RAM	DVD RW	DVD R

- DVD-RWs and DVD-RAMs are rewritable.
- DVD-Rs are non-rewritable.

NOTE

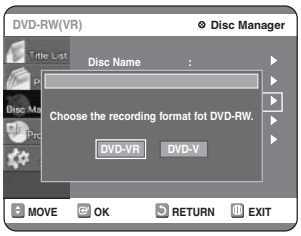
- No additional recording can be done using DVD-RW discs (Video mode) or DVD-R discs which have been recorded on devices other than this DVD recorder.
- Finalize
  - This closes the DVD-R/RW so no additional recording can be done.
- Unfinalize
  - This allows additional recording on a finalized DVD-RW disc.
  - A DVD-RW disc that has been recorded by DAO in a PC cannot be unfinalized.
  - A DVD-RW disc that has been recorded in Video Mode of a different maker's recorder cannot be unfinalized.
  - A DVD-R disc cannot be unfinalized.

Recording Formats

When you insert an unused disc, the following message appears; Since available functions differ depending on the disc type, select a disc that best fits your preferences.
DVD-RAM: Use after formatting the disc.

DVD-RW: When a blank disc is first inserted, the message “Do you want to initialize this disc?” will appear.
When YES is selected, the mode will be formatted in VR Mode.

If you want to format in either VR Mode or Video Mode, refer to Formatting a Disc on page 84.



DVD-R: Formatting DVD is unnecessary and only Video Mode Recording is supported.

DVD-RW (Video mode)/-R

- This mode automatically creates chapters at specified intervals during finalization.
- Simple editing (erasing titles/changing title name)

DVD-RW (VR mode)/-RAM

- This mode allows multiple editing functions (such as deletion of the whole of a title, partial deletion of a title, etc.)
- Various editing options using a created Playlist.

Recording Mode

Select one of four recording modes by pressing the REC MODE button repeatedly while the unit is in Stop mode for the desired recording time and picture quality. In general, picture quality improves as the recording time decreases.
In FR Mode, picture quality is adjusted automatically so that all images for the scheduled time can be recorded onto the free disc space.

Mode	Characteristic	Recording Times
XP (high quality mode)	Select when the video quality is important.	Approx. 1 hour
SP (standard quality mode)	Select to record in standard quality.	Approx. 2 hours
LP (long recording mode)	Select when a long recording time is required.	Approx. 4 hours
EP (extended mode)	Select when a longer recording time is required.	Approx. 6 hours
FR (flexible recording)	For timer recording only. (See page 42)	Approx. 1 to 6 hours

Unrecordable pictures

Pictures with copy protection cannot be recorded on this DVD Recorder.
When the DVD Recorder receives a copy guard signal while recording, recording stops and the following message appears on the screen.

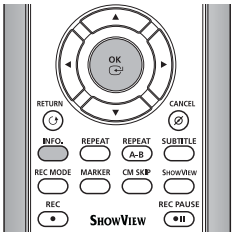
Concerning Copy Control Signals

Broadcasts that contain copy control signals may have one of the following three signal types, Copy-Free, Copy-Once and Copy-Never. If you want to record a copy-once type program, use DVD-RW with CPRM in VR Mode and DVD-RAM.

Media \ Signal type	Copy-Free	Copy-Once	Copy-Never
DVD-RW (Ver. 1.1)	○	–	–
DVD-RW (Ver. 1.1) with CPRM			
VR mode	○	○*	–
Video mode	○	–	–
DVD-R	○	–	–
DVD-RAM (Ver. 2.0)	○	○*	–

* Once “Copy Once” has been recorded, recording cannot be done anymore.

About INFO. Key

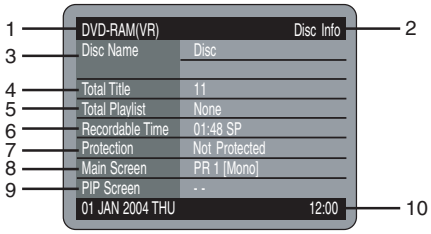


The INFO function allows you to view the current status and progress of playback and recording. Depending on the kind of disc and status, the displayed screen may be different.

Checking the available disc space (Disc Information)

When recording on an used disc, make sure that there is enough disc space for recording. With DVD-RWs or DVD-RAMs, you can free up disc space by erasing titles.

- Press the INFO. button.
  The disc information display window appears.
  Items in the display differ depending on the disc type or recording format.



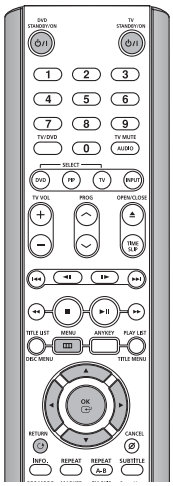
1. Disc Type
2. Current information display status
3. Disc Name
4. Total Title: Total number of titles
5. Total Playlist: Total number of Playlists
6. Recordable Time: The longest continuous recording time in each of the recording modes(approximate)
7. Protection: Shows the status of disc protected or not.
8. Main screen: the name of the program in the main picture
9. PIP screen: the name of the program in the PIP window
10. Date: Current date and time

Recording the current TV program you are watching

DVD-RAM DVD-RW DVD-R

Before you start

Check that the disc has enough available space for the recording. Adjust the recording picture quality mode.



1 **Press the OPEN/CLOSE button and place a recordable disc on the disc tray.**

2 **Press the OPEN/CLOSE button to close the disc tray.**

Wait until “LOADING” disappears from the front panel display.
If an unused DVD-RAM disc is used, whether to format or not will be asked first. Make your selection, then press OK. (See page 36)

If an unused DVD-RW disc is used, whether to initialize or not will be asked first. Make your selection, then press OK. (See page 36)

3 Press the PROG (∧/∨) or number (0~9) buttons to select the current program you want to record.

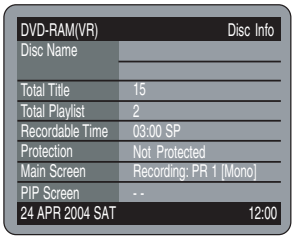
4 Press the REC MODE button repeatedly, (or Press the REC MODE button and then press the ▲▼ buttons) to select the recording speed (quality).

→ **SP** → **LP** → **EP** → **XP**

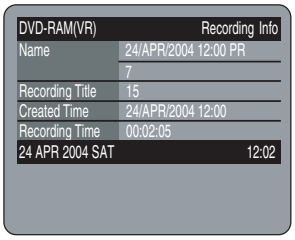
5 Press the REC button.

Information concerning the channel is displayed on the screen and then recording begins.

To view the current status of the disc and progress of recording: Press the INFO. button, and the information about the disc will appear.



Press the INFO. button once again.
Then you can check the information about the title under recording.



To pause recording

Press the REC PAUSE button to pause a recording in progress.

- Press the REC PAUSE button again to resume recording.
- You can switch channels by pressing the PROG (∧/∨) buttons while recording pauses.

To stop recording

Press the STOP (■) button to stop or finish a recording in progress.

- When using DVD-RAM/DVD-RW/DVD-R discs, the message 'Updating the information of disc. Please wait for a moment' is displayed.

NOTE

- You cannot change the recording mode and the PROG while recording.
- Recording will stop automatically if there is no free space left for recording.
- Up to 99 titles can be recorded onto a disc.
- Recording will stop automatically if a copy protected image is selected.
- DVD-RAM/DVD-RW discs must be formatted before starting to record.
  Most new discs are sold unformatted.
- Do not use DVD-R authoring discs with this unit.

Recording from external equipment you are watching

DVD-RAM DVD-RW DVD-R

Before you start

Check that the disc has enough available space for the recording. Adjust the recording mode.

1 **Press the OPEN/CLOSE button, and place a recordable disc on the disc tray.**

2 **Press the OPEN/CLOSE button to close the disc tray.**

Wait until “LOADING” disappears from the front panel display.
If an unused DVD-RAM disc is used, whether to format or not will be asked first. (See page 36)
If an unused DVD-RW disc is used, whether to initialize or not will be asked first. (See page 36)

3 **Press the INPUT button to select the input source according to the connection you made.**

The front panel display changes in the following sequence:

→ **PROG Number** → **AV1** → **AV2** → **AV3** → **AV4** → **DV**

If you connect a digital camcorder, press the INPUT button to select DV.

4 **Press the REC MODE button repeatedly, (or Press the REC MODE button and then press the ▲▼ buttons) to select the recording speed (quality).**

→ **SP** → **LP** → **EP** → **XP**

5 **Press the REC button.**

To pause recording

Press the REC PAUSE button to pause a recording in progress.

- Press the REC PAUSE button again to resume recording.
- You can switch channels by pressing the PROG (∧/∨) buttons while recording pauses.

To stop recording

Press the STOP (■) button to stop or finish a recording in progress.

- When using DVD-RAM/DVD-RW/DVD-R discs, the message ‘Updating the information of disc. Please wait for a moment’ is displayed.

NOTE

- You cannot change the recording mode and input source while recording.
- Recording will stop automatically if there is no free space left for recording.
- Up to 99 titles can be recorded onto a disc.
- Recording will stop automatically if a copy protected image is selected.
- DVD-RAM/DVD-RW discs must be formatted before starting to record.
  Most new discs are sold unformatted.
- Do not use DVD-R authoring discs with this unit.

English

Reviewing Images Being Recorded (Time Slip)

DVD-RAM

This function lets you watch recently recorded 10-second images on the PIP screen while a recording is in progress.

1 Press the TIME SLIP button during DVD-RAM recording.

The recently recorded 10-second images are played back on the PIP screen.

- The Time Slip function allows you to view a recorded program through the PIP window at least 10 seconds after recording starts. Playback and recording can be done at the same time.
- During the operation of Time Slip, playback related buttons control the PIP window.
- On the time slip screen, you can play, scan, or perform other operations for the recorded program using the playback related buttons.
  - Press the ◂◂ button to scan the recording in reverse order, from end to the start.
  - Press the ▸▸ button to scan recently recorded 10-second images.

When the INFO. button is pressed, current information about the disc will appear.

DVD-RAM(VR)	Disc Info
Disc Name	
Total Title	15
Total Playlist	2
Recordable Time	03:00 SP
Protection	Not Protected
Main Screen	Recording: PR 1 [Mono]
PIP Screen	Playback
24 APR 2004 SAT	12:00

When the INFO. button is pressed again: Information about playback will appear.

DVD-RAM(VR)	Playing Info
Name	04/APR/2004 12:00 PR
	7
Title	15/15
Created Time	04/APR/2004 12:00
Length	- --:--:-- -
PlayingTime	00:02:05
Title Protection	Not Protected
24 APR 2004 SAT	12:00

When the INFO. button is pressed once again: Information about recording will appear.

DVD-RAM(VR)	Recording Info
Name	24/APR/2004 12:00 PR
	7
Recording Title	15
Created Time	24/APR/2004 12:00
Recording Time	00:02:05
24 APR 2004 SAT	12:02

2 Press the STOP button to clear the time slip function.

To stop a recording while the Time Slip function is in process, press the STOP button twice. The first press will stop playback of the Time Slip function. The second press will stop recording.

NOTE

- The Time Slip function operates only with DVD-RAM.
- The Time Slip function is not supported in the DV recording mode.

Making a One Touch Recording (OTR)

DVD-RAM DVD-RW DVD-R

You can set the DVD-Recorder to record in 30-minute increments by pressing the REC button.

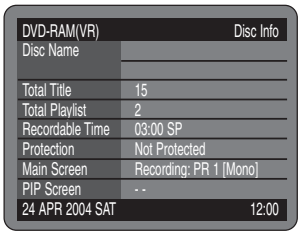
1 **If you want to record a TV channel, use the PROG (▲/▼) buttons or number buttons to select a desired channel. If you want to record through a connected external component, press the INPUT button to select an appropriate external input (AV1, AV2, AV3, AV4 or DV).**
• TV PROGRAM: 1 to 99

2 **Press the REC button, and then press the button once again during recording.**
"OTR" appears on the front panel display.

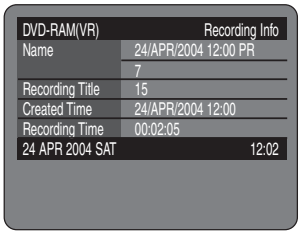
3 **Press the REC button to adjust the recording time.**
→ 0:30 → 1:00 → ...5:30 → 6:00 → 0:00 →

NOTE
■ The timer counter decreases minute 6:00 to 0:00, then the DVD Recorder stops recording.

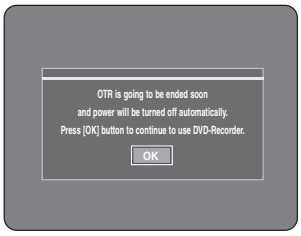
To view the current status of the disc and progress of recording: Press the INFO. button, and the information about the disc will appear.



Press the INFO. button once again.
Then you can check the information about the title under recording.



30 seconds before the recording is done, the message, which asks whether you want the recorder to power off when the recording is done, will appear on your screen.


OTR is going to be ended soon
and power will be turned off automatically.
Press [OK] button to continue to use DVD-Recorder.
OK

To stop recording

Press the STOP (■) button. The message "Do you want to stop recording?" is displayed.

• Press the ◄ ► buttons to select Yes, and then press the OK button.

English

Making a Standard Timer

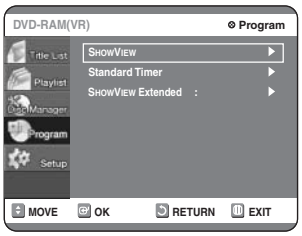
Before you start

1. Check the antenna cable is connected.
2. Check the remaining time of the disc.
3. Check the date and time are correct.

Make sure the Clock has been set (Setup - System Setting) before you proceed with a timer recording.

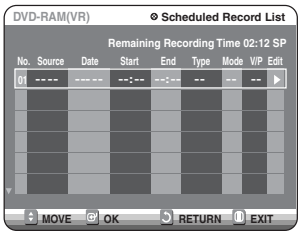
1 Press the MENU button.

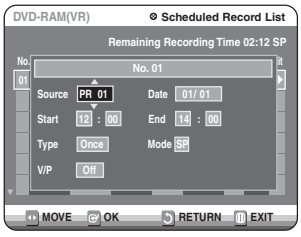
2 Press the ▲▼ button to select "Program" and then press the OK or ► button.



3 Press the ▲▼ button to select "Standard Timer" and then press the OK or ► button.

4 Press the ▲▼ button to select "Scheduled Record List", and then press the OK or ► button.

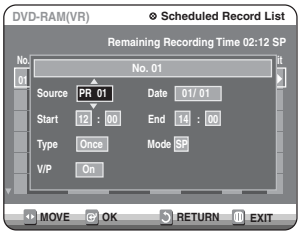




5 Set timer recording option.

- The Timer Recording screen is displayed. Fill the input items using the arrow buttons and number buttons.
  ◄ ►: Moves to the previous/next item,
  ▲▼: Sets a value.

- **Source**: The video input source (AV1, AV2, AV3 AV4 or DV), or the broadcasting channel you want to make a timer recording from.
- **Date**: Set the recording day.
- **Start/End Time**: Start and end time of the timer recording.
- **Type** (Recording cycle).
  Once: Records once.
  Weekly: Records at a set time every week.
  Daily: Records at a set time every day.
- **V/P**: VPS (Video Program System) or PDC (Program Delivery Control) function.



- If you set this function on, you can control the starting and ending time of recording by special signal included in the broadcasting signal. If a TV program is shortened or starts earlier or later than scheduled, this function synchronizes the starting and ending time of recording with the actual broadcasting time automatically.
- Set up the start-time EXACTLY according to the published TV schedule. Otherwise the timer recording will not take place.
- Do not select PDC or VPS unless you are sure the program you wish to record is broadcast with PDC or VPS.

Mode (Recording Mode)

- FR: Select when you want to set video quality automatically. It depends on the remaining time on the DVD.
- XP (high quality): Select when audio and video qualities are important. (Approx. 1 hour)
- SP (standard quality): Select to record in standard quality. (Approx. 2 hours)
- LP (low quality): Select when a long recording time is required. (Approx. 4 hours)
- EP (extended mode): Select when a longer recording time is required. (Approx.6 hours)

6 Press the OK button.

• ◷ will appear on the front panel. It means that a timer recording is registered.

If you make a mistake
Press the ◄ ► button to select the item you want to change.

If the timer settings overlap
The programs are recorded in order of priority. If timer recording is set for the first program and then again for the second program and both programs overlap, the following message will appear on the screen: "This setting is identical with 1." The message shows that the first program has priority. After recording of the first program is complete, the second program starts being recorded.

To exit without saving the current setting
Press the MENU button.

To return to the previous menu
Press the RETURN button if you don't want to set a timer recording.

7 Turn the power off to finish the timer recording. Timer recording will not work, when the power on.

• ◷ will blink if disc is not inserted.

NOTE

- The timer recording time may differ from the set time depending on disc status and overall timer recording status (for example, recording times overlapping, or when the previous recording ends within 2 minutes before the start time of the next recording.)
- The maximum number of programs that can be preset for the timer is 12.

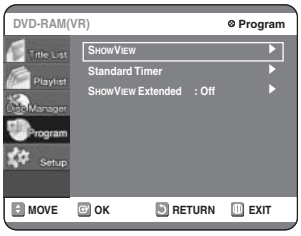
Editing a Standard Timer

DVD-RAM DVD-RW DVD-R

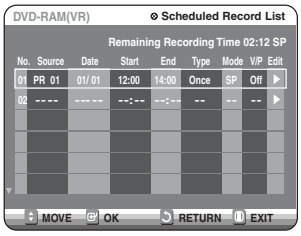
Follow these directions to edit the timer record list.

1 Press the MENU button.

2 Press the ▲▼ button to select "Program" and then press the OK or ► button.

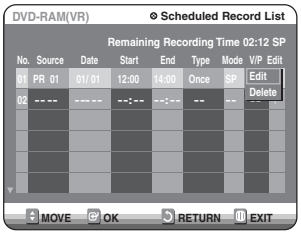


3 Press the ▲▼ button to select "Standard Timer", and then press the OK or ► button.


DVD-RAM(VR)
Scheduled Record List
Remaining Recording Time 02:12 SP
No. Source Date Start End Type Mode V/P Edit
01 PR 01 01/01 12:00 14:00 Once SP Off
02 - - - - - - - - --:-- --:-- -- -- --
MOVE
OK
RETURN
EXIT

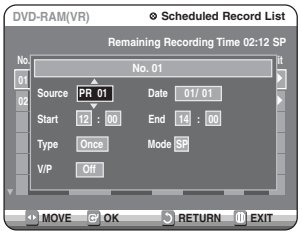
4 Press the ▲▼ button to select the number of the timer recording you want to edit, and then press the OK or ► button.

• The Edit and Delete items are displayed.



5 **Press the ▲▼ button to select Edit, and then press the OK button.**

- The Timer Recording screen is displayed. Edit the items you want to modify.
  See the “Making a Standard Timer” section for more information on Timer Recording Input items.



6 **Press the OK button to confirm the edited setting.**

Deleting a Standard Timer

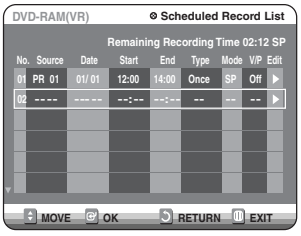
DVD-RAM DVD-RW DVD-R

Follow these directions to delete an entry from the timer record list.

1 **Press the MENU button.**

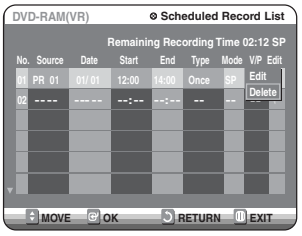
2 **Press the ▲▼ button to select “Program” and then press the OK or ► button.**

3 **Press the ▲▼ button to select “Standard Timer”, and then press the OK or ► button.**


DVD-RAM(VR)
Scheduled Record List
Remaining Recording Time 02:12 SP
No. Source Date Start End Type Mode V/P Edit
01 PR 01 01/ 01 12:00 14:00 Once SP Off
02 ---- ---- --:-- --:-- -- -- --
MOVE
OK
RETURN
EXIT

4 **Press the ▲▼ button to select the number of the timer recording you want to delete, and then press the OK button.**

- The Edit and Delete items are displayed.


DVD-RAM(VR)
Scheduled Record List
Remaining Recording Time 02:12 SP
No. Source Date Start End Type Mode V/P Edit
01 PR 01 01/ 01 12:00 14:00 Once SP Edit
02 ---- ---- --:-- --:-- -- -- Delete
MOVE
OK
RETURN
EXIT

5 **Press the ▲▼ button to select Delete, and then press the OK button.**

- You will be prompted with the delete confirm message such as ‘Do you want to delete No.XX?’.

6 **Press the ◄► buttons to select Yes, and then press the OK button.**
- The selected entry will be deleted from the list.

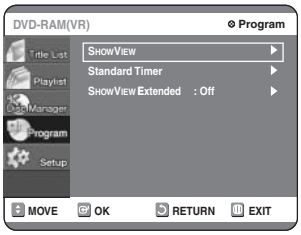
7 **Press the MENU button after finishing the operation. The menu screen will disappear.**

Using the SHOWVIEW Feature

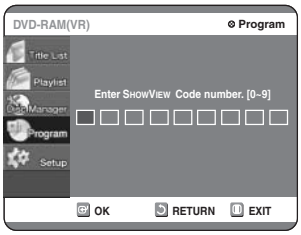
Before presetting your DVD Recorder:
- Switch on both the television and your DVD Recorder
- Check that the date and time are correct

Up to 12 programs can be preset.

1 **Enter a SHOWVIEW button. Press the ▲▼ and OK or ► buttons to select SHOWVIEW.**
- A message is displayed to allow you to enter the SHOWVIEW code.
- If all 12 programs have been set, the message 'Timer is full' is displayed. Refer to page 44 if you wish to cancel a preset recording.



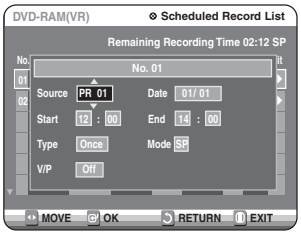
2 **Press the numeric buttons to enter the code of the program that you wish to record in your television magazine.**
If you wish to correct the ShowView code that you are entering:
- Press the ◄ button until the digit to be corrected is cleared.
- Enter the correct digit.

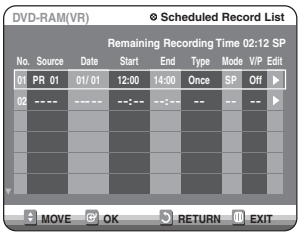


English

3 Press the OK button.

- The information concerning the program is displayed.
- When using the SHOWVIEW function for the first time with stored stations, the program number flashes. This one time, you must enter the PR number manually by pressing the ▲▼ buttons. Refer to the following page if:
- The program number or times flash
- You wish to modify the program.




DVD-RAM(VR)
Scheduled Record List
Remaining Recording Time 02:12 SP
No. Source Date Start End Type Mode V/P Edit
01 PR 01 01/ 01 12:00 14:00 Once SP Off
02 ---- ----- --:-- --:-- -- -- --
MOVE
OK
RETURN
EXIT

4 If the program and times are correct, press the OK button.

5 Press the STANDBY/ON button to activate the timer.

6 Refer to pages 43~45 if you wish to:

- Check that your DVD Recorder has been programed correctly.
- Cancel a preset recording.

NOTE

■ The numbers next to each TV program listing in the magazines or newspapers are SHOWVIEW code numbers, which allow you to program your DVD recorder instantly with the remote control.
Tap in the SHOWVIEW code for the program you wish to record.

■ SHOWVIEW is a trademark of Gemstar Development Corporation. The SHOWVIEW system is manufactured under license from Gemstar Development Corporation.

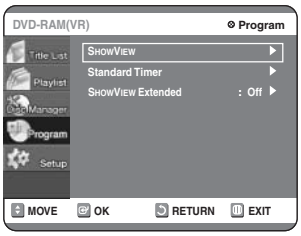
SHOWVIEW Extended

To prevent delays or over-runs, DVD-Recorder has a function called SHOWVIEW Extended allowing you to extend the recording time by up to 60 minutes.

1 Press the MENU button.

With the DVD in Stop press the MENU button.

2 Press the ▲▼ button to select "Program" and then press the OK or ► button.



3 Press the corresponding ▲▼ buttons, until the "SHOWVIEW Extended" option is selected.

4 Press the OK or ► buttons to set the "SHOWVIEW Extended" time by increments of 10 minutes.

5 To turn off, press OK or ► buttons repeatedly until Off shows.

Flexible Recording (for Timer recording only)

DVD-RAM DVD-RW DVD-R

In FR mode, the timer recording's the video quality is adjusted automatically so that all images for the scheduled time can be recorded onto the free disc space.

The FR mode recording setup is the same as Timer Recording. When setting the mode in step 6, set FR Mode.

Timer Recording Messages

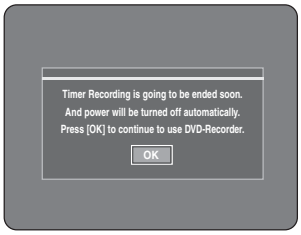
1 When the start time in the Standard Timer list arrives, if the set is in power off, the set will be automatically powered on. Then about 12 seconds before timer recording, a message that asks whether to cancel timer recording or not will be displayed.

- When "Yes" is selected: Cancel
- When "No" is selected: Recording

NOTE

■ If you are not present to set Yes or No, recording will still begin automatically.

2 Thirty seconds before the stop time, a message that asks whether to automatically power off or not after recording is done.


Timer Recording is going to be ended soon.
And power will be turned off automatically.
Press [OK] to continue to use DVD-Recorder.
OK

- When "OK" is selected: Power on after recording
- If there is no entry: Auto power off

NOTE

■ If you are not present to select OK, the unit will power off automatically after the recording finishes.

To stop Recording

Press the STOP (■) button, and the message that asks whether to end recording or not will be displayed.

- When “Yes” is selected: Recording stops
- When “No” is selected: Recording continues

NOTE

■ If disc space lacks or a signal for the prevention of copy is received during recording, recording will stop.

■ If there is no free disc space even though the start time arrives or the disc is not recordable, recording will not operate. (You can record after replacing the disc.)

Playback

This section introduces basic functions of playback and playback by disc type.

Dolby Digital | DTS | Digital Audio

Stereo | PAL broadcast system in U.K., France, Germany, etc. | MP3

Before Playing 49
Playing a Disc.....50
Playing an Audio CD/MP3 63
Playing a Picture CD 66
Playing the Title List.....67

Before Playing

Read the following information before playing a disc.

Region code (DVD-Video only)

Both the DVD recorder and the discs are coded by region. These regional codes must match in order for the disc to play. If the codes do not match, the disc will not play. The Region Number for this recorder is described on the rear panel of the recorder.

Disc types that can be played

Disc Types	Disc Logo	Recorded content	Disc Shape	Max. Playing Time
DVD-Video	DVD VIDEO	AUDIO + VIDEO	Single sided (5")	240
			Double sided (5")	480
			Single sided (3.5")	80
			Double sided (3.5")	160
AUDIO-CD	COMPACT disc DIGITAL AUDIO	AUDIO	Single sided (5")	74
			Single sided (3.5")	20
JPEG CD-R/RW		JPEG Images	Single sided (5")	—
			Single sided (3.5")	—
MP3 CD-R/RW		MP3 Audio	Single sided (5")	—
			Single sided (3.5")	—
DVD-RAM	DVD RAM	AUDIO + VIDEO	Single-sided (5")	1 (XP: Excellent Quality)
				2 (SP: Standard Quality)
				4 (LP: Long Playback)
				6 (EP: Extended)
			Double-sided (5")	2 (XP: Excellent Quality)
				4 (SP: Standard Quality)
				8 (LP: Long Playback)
				12 (EP: Extended)
DVD-RW	DVD RW	AUDIO + VIDEO	5" (4.7 GB)	1 (XP: Excellent Quality)
				2 (SP: Standard Quality)
				4 (LP: Long Playback)
				6 (EP: Extended)
DVD-R	DVD R	AUDIO + VIDEO	5" (4.7 GB)	1 (XP: Excellent Quality)
				2 (SP: Standard Quality)
				4 (LP: Long Playback)
				6 (EP: Extended)

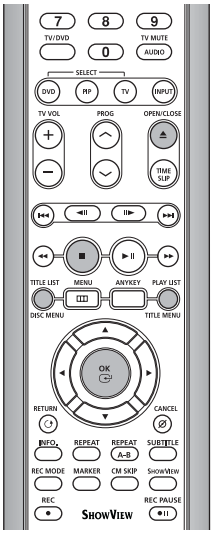
Discs that cannot be played

- DVD-Video with a region number other than "2" or "ALL"
- 5" 2.6 GB and 5.2 GB DVD-RAM
- 3.9 GB DVD-R Disc for Authoring.
- DVD-RAM, DVD-RW (VR mode) not recorded following the Video Recording Standard
- Unfinalized DVD-R, unfinalized DVD-RW (V mode) recorded on other equipment.
- DVD-ROM/DVD+RW/PD/MV-Disc/DivX Video Disc, etc.
- Video CD/CVD/SVCD/CD-ROM/CDV/CD-G/CD-I

NOTE

- This DVD recorder can only operate with discs that are compatible with DVD-RAM Standard Version 2.0.
- Playback and/or recording may not work for some types of discs, or when specific operations, such as aspect ratio adjustment, are being performed. Information about the discs is written in detail on the box. Please refer to this if necessary.
- Do not allow the disc to become dirty or scratched. Fingerprints, dirt, dust, scratches or deposits of cigarette smoke on the recording surface may make it impossible to use the disc for recording.
- To protect a DVD-RAM/RW/R disc, from damage, use a cartridge.
- DVD-RAM/RW/R discs may not be able play on some DVD players, depending on the player, disc and the condition of the recording.

Playing a Disc



1 Press the OPEN/CLOSE button.

The tray opens.

2 Place a disc gently into the tray with the disc's label facing up.

For DVD-RAM discs, insert the printed side facing up.

3 Press the OPEN/CLOSE button to close the disc tray.

- Your DVD Recorder closes the disc tray and plays the disc automatically.
- The recorder does not play discs automatically after the initial power on.
- When the recorder is powered on and a disc is in the tray, the unit will be activated and wait in stop status.
- Press PLAY button to start playback.
- If you insert an MP3 Disc, your DVD Recorder will display the file list on the screen and start playing.
- When a JPEG disc is inserted, folders and a file list are displayed.
- To play automatically at the initial power on, power on with PLAY button. Since then, the disc plays automatically when you open and close the disc tray.

4 Press the STOP button to stop playback.

NOTE

- When you stop playing disc, the recorder remembers where you stopped. So when you press PLAY button again, it will pick up where you left off. (unless the disc is removed or the recorder is unplugged, or if you press the STOP button twice.) This function is only applicable to DVD-Video, DVD-RAM, DVD-RW, DVD-R or audio CDs (CD-DA).
- This DVD Recorder can play back 8-cm DVD-R discs that have been recorded on a Hitachi DVD video camera/recorder and not finalized. However, no image can be recorded on these discs.

CAUTION

- Do not move your DVD recorder while playing, as this may cause damage to the disc.
- Make sure to press the OPEN/CLOSE button to open or close the disc tray.
- Do not push the disc tray while it is being opened or closed, as this may cause a product malfunction.
- Do not place foreign materials on or in the disc tray.
- Some functions may perform differently or be disabled depending on the disc type. If this occurs, refer to the instructions written on the disc case.
- Be especially careful that children's fingers are not caught between the disc tray and the tray chassis when it closes.

Using the Disc & Title Menu

Some type of discs contain a dedicated menu system that allows you to select special functions for the title, such as chapters, audio tracks, subtitles, film previews, information on characters, etc.

For DVD-Video discs

DVD-VIDEO

1 Press the DISC MENU button to enter the disc menu of the disc.

- Move to the setup menu related to the playback operation.
- You can select the audio languages and the subtitles provided by the disc.

2 Press the TITLE MENU button to move to the title menu of the disc.

- Use this button if the disc contains more than one title. Some type of discs may not support the title menu function.

For DVD-RAM/RW/R discs

DVD-RAM DVD-RW DVD-R

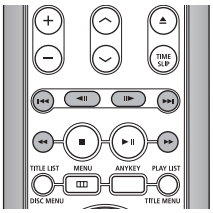
1 Press the TITLE LIST button to move to the Title List.

NOTE

■ **Title List:**
Title refers to a recorded video stream. Title List shows a list to help you select a title. Since the title list consists of the information on stream that is actually recorded, if one title is deleted, that title cannot be played again.

■ **Play List:**
This refers to a unit of playback, which is made by selecting a desired scene in the entire Title List. When one playlist is played, only the scene selected by the user will play and then stop. Since only the information necessary for playing a desired scene is included in a playlist, even if that playlist is deleted, the original stream will not be deleted.

Using the Search Functions



Searching through a Chapter or Track

DVD-VIDEO DVD-RAM DVD-RW DVD-R CD

1 During play, press the SEARCH (⏪ ⏩) button on the remote control.

DVD-Video/ DVD-RAM/ DVD-RW/DVD-R	▶▶Fast X 2 → ▶▶Fast X 4 → ▶▶Fast X 8 → ▶▶Fast X 16 → ▶▶Fast X 32 → ▶▶Fast X 128
AUDIO CD (CDDA)	▶▶Fast X 2 → ▶▶Fast X 4 → ▶▶Fast X 8

- You can scan the program in reverse. To return to normal speed playback, press the ⏯ button.
- When you press and hold the SEARCH button (⏪ ⏩), playback is done at the default speed of 4X. If you release the SEARCH button, playback is performed at a normal speed.
- The speed marked in this function may be different from the actual speed of playback.

NOTE

■ No sound is heard during Scan (Search) mode.

Searching Chapters or Tracks

• During play, you can search quickly through a chapter or track.

1 During play, press the ⏮ ⏭ button on the remote control.

• If you press the ⏮ button,
it moves to the beginning of the chapter or track or marker (DVD-RAM, DVD-RW (VR mode)). Pressing the button once again within 3 seconds returns to the beginning of the previous chapter or track or marker (DVD-RAM, DVD-RW (VR mode)).

• If you press the ⏭ button,
it moves to the next chapter or track or marker (DVD-RAM, DVD-RW (VR mode)).

Slow Motion Play

DVD-VIDEO DVD-RAM DVD-RW DVD-R

1 In pause or stop mode, press the ◀◀ ▶▶ button on the remote control.

• If you press the ▶▶ button,
▮▶ Slow 1/8 → ▮▶ Slow 1/4 → ▮▶ Slow 1/2

• If you press the ◀◀ button,
◀▮ Slow 1/8 → ◀▮ Slow 1/4 → ◀▮ Slow 1/2

• To return to normal speed playback, press the ⏯ button.

Press and hold the ◀◀ ▶▶ button during pause, and the disc will play slowly at a 1/4 speed. If the button is released, the pause operation will resume.

NOTE

■ The speed marked in this function may be different from the actual speed of playback.

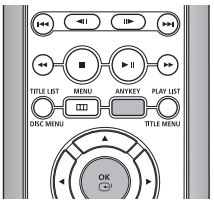
Step Motion Play

DVD-VIDEO DVD-RAM DVD-RW DVD-R

1 Press the ◀▮ ▮▶ button on the remote control.

- Each time the button is pressed, a new frame will appear.
  When ◀▮ is pressed, the previous frame will be activated.
  When ▮▶ is pressed, the next frame will be activated.
- To return to normal speed playback, press the ⏯ button.

About ANYKEY



The ANYKEY function allows you to easily search for a desired scene by accessing title, chapter, track, and time. You can also change the subtitle and audio settings and set some features including Repeat, Angle, and Zoom.

Moving to a scene directly using the ANYKEY

• If you want to move to a title, a chapter or a track to find a desired scene.

1 Press the ANYKEY button during playback.

2 Press the ▲▼ buttons to select the "Title, Chapter or Track".

3 Press the ◀▶ buttons or numerical (0~9) buttons to select the desired scene.
Then, press the OK button.

• **If you want to move to a desired time to help you find a scene.**

1 **Press the ANYKEY button during playback.**

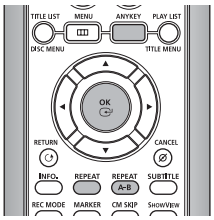
2 **Press the ▲▼ buttons to select the "Time".**

3 **Enter the time in the sequence of hours, minutes, and seconds using the number buttons and then press the OK button.**

NOTE

- This may not work for some discs. When an audio CD (CD-DA) or a MP3 disc is inserted, according to a disc type, the information display may not be appear.
- The Time Search function does not operate in some discs.
- To make the screen disappear, press the ANYKEY again.

Using the Repeat Function



Playing Repeatedly (Repeat Playback)

DVD-VIDEO DVD-RAM DVD-RW DVD-R

Using the REPEAT button

1 **Press the REPEAT button.**

2 **Press the REPEAT button or press the ▲▼ buttons to select the Title or Chapter you want to play repeatedly. Press the OK button.**

Chapter: Repeats the chapter that is playing.
Title: Repeats the title that is playing.

- To return to normal playback -

3 **Press the ▲▼ buttons to select Off and press the OK button or press the REPEAT button.**
Press the CANCEL button to return to normal playback.

Using the ANYKEY button

1 **Press the ANYKEY button.**

2 **Press the ▲▼ buttons to select "Repeat" and press the ◄► buttons to select the Title or Chapter you want to play repeatedly.**

3 **Press the OK button.**
To make the screen disappear, press the ANYKEY or RETURN button. Repeat play allows you to repeat a title or chapter.

NOTE

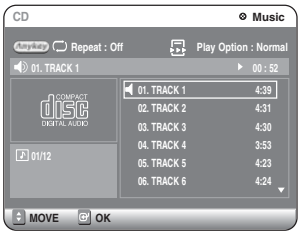
■ DVD-RAM, DVD-RW (VR mode), unfinalized DVD-R and unfinalized DVD-RW (Video mode) do not repeat a chapter.

Playing Repeatedly (Repeat Playback)

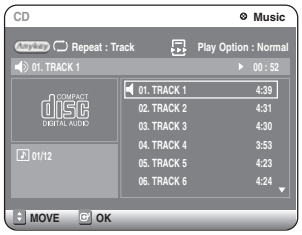
Using the REPEAT button

CD MP3

1 **Press the REPEAT button.**



2 **Press the REPEAT button repeatedly to select the Track or Disc you want to play repeatedly.**

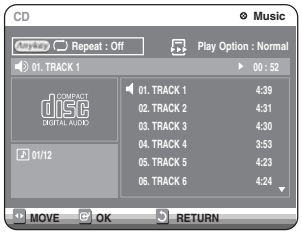


- To return to normal playback -

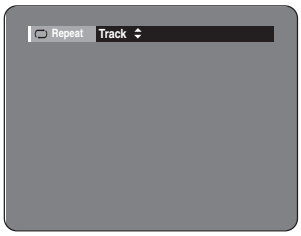
3 **Press the REPEAT button repeatedly to select Off.**
Press the CANCEL button to return to normal playback.

Using the ANYKEY button

1 **Press the ANYKEY button. Repeat is highlighted.**



2 **Press the OK button.**



3 **Press the REPEAT button or ▲▼ buttons to select the Track or Disc you want to play repeatedly. Press the OK button. For MP3 discs, you can select Track, Folder or Disc.**

- To return to normal playback -

4 **Press the REPEAT button repeatedly to select Off.**
Press the CANCEL button to return to normal playback.

Playing a Certain section Repeatedly (A-B Repeat Playback)

DVD-VIDEO DVD-RAM DVD-RW DVD-R

Using the REPEAT A-B button

1 **Press the REPEAT A-B button.**

2 **Press the REPEAT A-B button repeatedly to set start point A.**

3 **Press the OK button again to set end point B.**
Repeat playback of the A-B section starts.

- To return to normal playback -

4 **Press the REPEAT (A-B) button repeatedly to select Off.**

Using the ANYKEY button

1 **Press the ANYKEY button.**

2 **Press the ▲▼ buttons to select "Repeat" and press the ► button to select the A-B.**

3 **Press the OK button.**

4 **Press the OK or REPEAT A-B button at the point where you want the repeat play to start (A) and press it again at the point where you want the repeat play to stop (B).**

Repeat playback of the A-B section starts.

- To return to normal playback -

Select Off on the Repeat item.
Press the CANCEL button to return to normal playback.

NOTE

- If you set point (B) before five seconds has lapsed, the prohibition mark (⊘) will appear.
- You can also activate Normal Playback by pressing the Cancel button.
- CDs do not support the Repeat A-B function.

Selecting the Subtitle

Subtitle languages may not work depending on the disc type. This is only available during playback.

DVD-VIDEO

Using the SUBTITLE button

1 **Press the SUBTITLE button during playback.**

2 **Press the SUBTITLE button or ▲▼ buttons to select the desired subtitle language.**

Using the ANYKEY button

1 **Press the ANYKEY button during playback.**

2 **Press the ▲▼ buttons to select "Subtitle" and press the ◄► buttons to select the desired subtitle language.**

NOTE

- The subtitle display may be different depending on the disc type.
- If the subtitles overlap, disable the caption function on your TV.
- Some discs allow you to select the language for the disc menu only.

Selecting the Audio language

Audio languages may not work depending on the disc type. This is only available during playback.

DVD-VIDEO DVD-RAM

Using the AUDIO button

1 **Press the AUDIO button during playback.**

2 **Press the AUDIO button or ▲▼ buttons to select the desired audio language.**

Using the ANYKEY button

1 **Press the ANYKEY button during playback.**

2 **Press the ▲▼ buttons to select "Audio" and press the ◄► buttons to select the desired audio language.**

NOTE

- Audio languages may be different because they are disc-specific.
- Some discs allow you to select the audio language for the disc menu only.

Changing the Camera Angle

When a DVD-Video contains multiple angles of a particular scene, you can select the Angle function. This is only available during playback.

DVD-VIDEO

1 **Press the ANYKEY button during playback.**

2 **Press the ▲▼ buttons to select "Angle" and press the ◄► buttons or number buttons to select the desired angle.**

NOTE

- This function is disc-dependent, and may not work on all DVDs.
- This function does not work when a DVD has not been recorded with a multi-camera angle system.

Zooming-In

DVD-VIDEO DVD-RAM DVD-RW DVD-R

1 **Press the ANYKEY button during playback or pause.**

2 **Press the ▲▼ buttons to select "Zoom", and then press the OK button. ( ) will be displayed.**

3 **Press the ▲▼◄► buttons to move to the area you want to enlarge.**

4 **Press the OK button. The screen will be enlarged to twice the normal size.**

If you press the OK button again after the screen was enlarged to twice the normal size, the screen size will be enlarged to four times the normal size.

normal size → 2X → 4X → 2X

NOTE

- When recording is done in the EP mode, the Zoom function will not be supported.

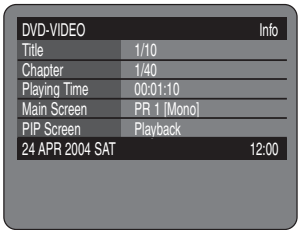
Using PIP (Picture in Picture)

The PIP function allows you to view a sub screen together with the main screen.
You can view TV while playing a DVD disc.

1 Press the PIP button.

The current disc is played in the PIP screen located at the bottom right of the screen.

To view the current status and progress of playback : Press the INFO. button.

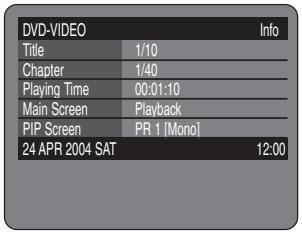


Switching between the PIP and the main screens

2 Press the PIP button again.

The main and PIP screen will be switched.
The input source is played in the PIP screen located at the bottom right of the screen.

To view the current status and progress of playback : Press the INFO. button.



Deactivating PIP

3 Press the PIP button repeatedly to select Off.

→**Playback** → **Input** → **Off**

NOTE

- DVs, MP3 files, and CDs do not support the PIP mode.
- You cannot use PIP function when the screen has highlight information, and PIP will go off automatically.

Using Bookmarks

DVD-VIDEO DVD-R DVD-RW (V mode)

1 **Press the MARKER button during playback.**

2 **Press the OK button when the desired scene appears.**
The number 1 is displayed and the scene is memorized.

3 **Press the ◄ ► button to move to the next position.**

4 **Press the OK button when the desired scene appears.**
The number 2 is displayed and the scene is memorized.

- Repeat above to bookmark other positions.
- You can bookmark up to 10 scenes.

NOTE

■ When the disc tray is opened and then closed, bookmarks will disappear.

Playing Back a Bookmark

1 **Press the MARKER button.**

2 **Press the ◄ ► buttons to select a bookmarked scene.**

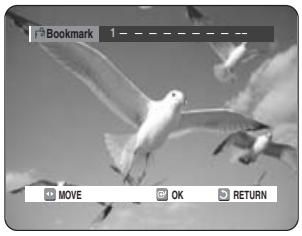
3 **Press the OK or ⏯ button to start playing from the selected scene.**

Clearing a Bookmark

1 **Press the MARKER button.**

2 **Press the ◄ ► buttons to select a bookmarked scene.**

3 **Press the CANCEL button to delete the selected bookmark.**



Using Markers

DVD-RAM DVD-RW (VR mode)

1 **Press the MARKER button.**

2 **Press the OK button when the desired scene appears.**

The number 1 is displayed and the scene is memorized.

3 **Press the ◄ ► button to move to the next position.**

4 **Press the OK button when the desired scene appears.**

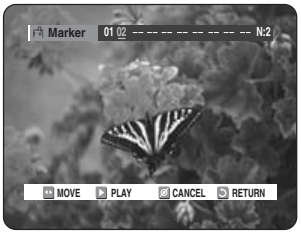
The number 2 is displayed and the scene is memorized.

- DVD-RAM or DVD-RW (VR Mode) discs have the Marker function instead of the Bookmark function. The Marker function allows you to mark up to 99 scenes. Since the scenes may be displayed as many different pages, numbering is necessary. If a disc in use is encoded with Cartridge Protect or Disc Protect, Markers cannot be set or deleted. Only playback is available.

Playing Back a Marker

1 **Press the MARKER button.**

2 **Press the ◄ ► buttons to select a bookmarked scene.**



3 **Press the OK or ⏯ button to start playing from the selected scene.**

- If you press the NEXT SKIP (⏭) button or the PREVIOUS SKIP (⏮) button in marker mode, when the next or current marked point plays for shorter than three seconds, playback starts from the previous marked point.

Clearing a Marker

1 **Press the MARKER button.**

2 **Press the ◄ ► buttons to select a bookmarked scene.**
Press the CANCEL button to delete the selected bookmark.

- When a marker is cleared while DVD-RAM/-RW (VR mode) is playing, marker numbers will change.
  For example, if the 7th marker is cleared after ten markers are registered, the marker numbers after the eighth will automatically move ahead by one.

Playing an Audio CD/MP3

Playing an Audio CD (CD-DA)/MP3

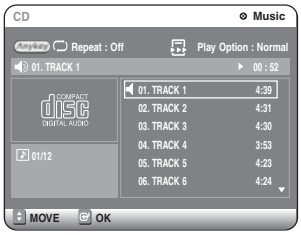
Each disc has a variety of menu functions available.

CD

Playing an Audio CD (CD-DA)

1 Insert an audio CD (CD-DA) into the disc tray.

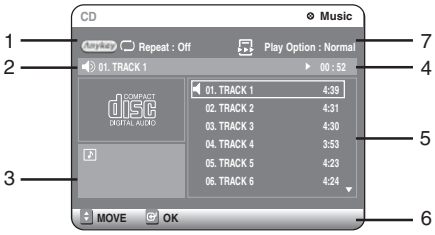
The audio CD menu appears and the tracks (songs) are played automatically.



2-1 Press the ▲▼ buttons to select the track (song) you want to hear, and then press the OK button or ► button.

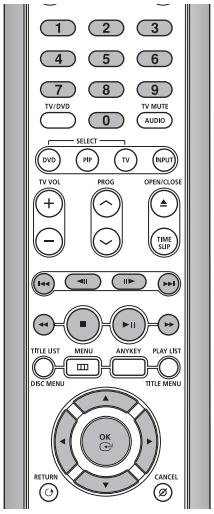
2-2 Press the number buttons to select the track (song) and the track (song) is played automatically.

Audio CD (CD-DA) Screen Elements



1. Repeat mode: Repeat off/Repeat Track/Repeat Disc
2. Current track (song): Displays the number of the track currently being played.
3. Displays the current play index and total track number.
4. This shows the operating state of a disc and a playback time corresponding to a portion that is currently played.
5. Displays the track list (song list) and the playing time of each track.
6. Button display.
7. Play Option: Normal, Random, Intro or Playlist

The Buttons on the Remote Control



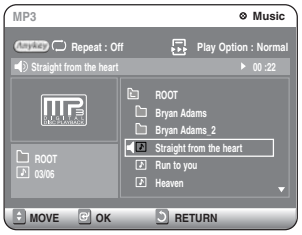
1. ▲▼, 0~9: Selects a track (song).
2. ►: Plays the selected track (song).
3. OK button: Plays the selected track (song).
4. (⏭) button: Plays the next track.
5. (⏮) button: Returns to the beginning of the current track when pressed during playback. If pressed again, your DVD recorder moves to and plays the previous track.
   If you press this button within three seconds after playback starts, the previous track will be played.
   If you press this button after three seconds, the current track will be replayed from the beginning.
6. Press the (⏪ / ⏩) button: Fast Play (X2, X4, X8)
7. ⏹ **:** Stops a track (song).
8. ⏯ **:** Plays a track (song) or pauses playback.

English

Playing a MP3 Disc

MP3

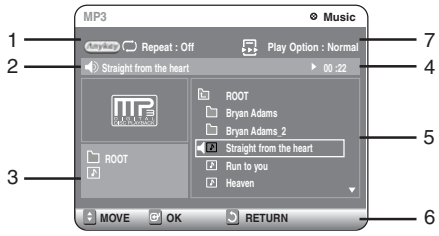
1 Insert a MP3 Disc into the disc tray.
The MP3 menu appears and the tracks (songs) are played automatically.



2-1 Press the ▲ ▼ buttons to select the track (song) you want to hear, and then press the OK button or ► button.

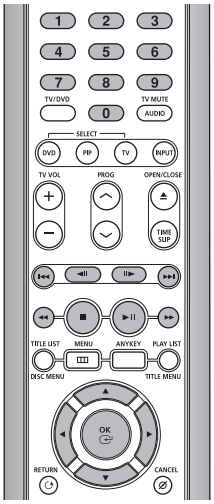
2-2 Press the number buttons to select the track (song) and the track (song) is played automatically.

MP3 Screen Elements



1. Repeat mode: Repeat off, Repeat Track, Repeat Folder or Repeat Disc
2. Current track (song): Displays the name of the track being played.
3. Displays the current folder and play index.
4. This shows the operating state of a disc and a playback time corresponding to a portion that is currently played.
5. Displays the information for the folder and its tracks.
6. Button display.
7. Play Option : Normal, Random, Intro or Playlist

The Buttons on the Remote Control

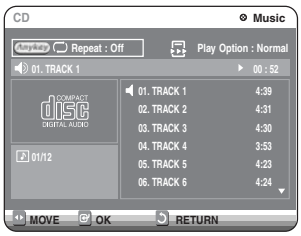


1. ▲▼, 0~9: Selects a track (song).
2. ►: Plays the selected track (song).
3. OK button: Plays back the selected track (song) or displays the files in the selected folder.
4. RETURN button: Moves to the folder to which the current song belongs.
5. (⏭) button: Plays the next track.
6. (⏮) button: Returns to the beginning of the current track when pressed while playing. If pressed again, your DVD recorder moves to and plays the previous track.
   If you press this button within three seconds, the previous track will be played.
   If you press this button after three seconds, the current track will be replayed from the beginning.
7. ⏹ **:** Stops a track (song).
8. ⏯ **:** Plays a track (song) or pauses playback.

Play Option Mode

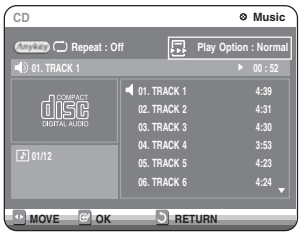
The Play Option can be used with an audio CD or MP3 in the Play or Stop mode.

1 **Press the ANYKEY button.**
Repeat Mode will be highlighted.



- During Playback, Repeat Mode will be highlighted.
- During Stop, Play Option will be highlighted.

2 **Select Play Option Mode using the ◄► buttons and press the OK button.**
The play option screen will appear.



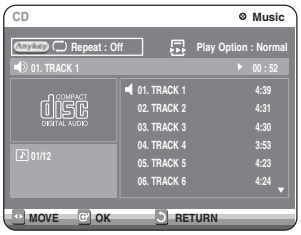
3 **Select a desired play option (Normal, Random, Intro or Playlist) using the ▲▼ buttons.**

- **Normal:** Tracks on a disc are played in the order in which they were recorded on the disc.
- **Random:** The Random option plays a disc's tracks in random order. After a random list is generated and played completely, another random list is generated and played.
  Random Play is continued until the play option is changed.
- **Intro:** The first 10 seconds of each track will be played.
  If you want to listen to the music that you have selected, press the OK button or ⏯ button.
  The play option will be changed to Normal Play.
  If you Press ⏭ button, the recorder will skip to next track with play option of Intro.
  When Intro Play is completed, Normal Play is performed.
- **Playlist:** The Playlist playback option allows you to select the order in which you want tracks to play.

To Program Tracks

You can register a maximum 30 tracks in the playlist.

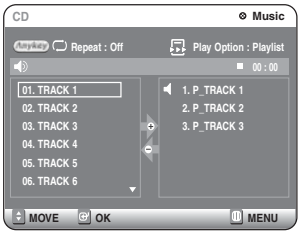
1 **Press the ANYKEY button.**
Repeat Mode will be highlighted.



2 **Select Play Option using the ◄► buttons.**

3 **Press the OK button.**
The play option screen will appear.
Select Playlist using the ▲▼ buttons.

4 **Press the OK button.**
The Playlist screen will appear.
Select tracks in the order in which you want them to play using the ▲▼ buttons.
Press the OK button.



Press the PLAY button to playback playlist.

5 **If you playlisted a wrong track, select the wrong track using the ▲▼ buttons and press the CANCEL button.**
The wrong track will be removed.

Playing a Picture CD

JPEG

There are two types of Picture CD. One is a CD with only JPEG files. The other one is a CD with JPEG files and MP3 files. (mixed CD)

1. When mixed CD is played, a menu will be shown in order to have you choose which contents, either JPEG or MP3, you want to play.

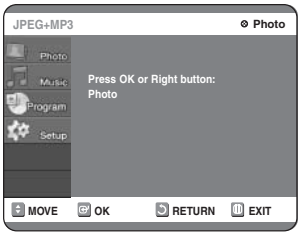
1-1. If you want to play MP3 files on a mixed CD, choose Music on the menu, then it will take you to MP3 playing back screen. See page 64.

1-2. If you want to play JPEG files on a mixed CD, choose Photo on the menu, then it will take you to photo playing back screen. See number 3 on the next page.

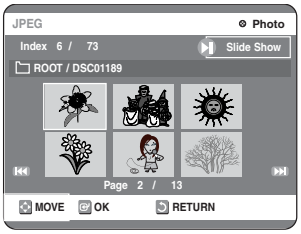
2. When a Picture CD (CD with only JPEG files) is played, the recorder will show Album screen, showing thumbnail images. See number 3 on the next page.

1 **Insert a Picture CD (JPEG only) or Mixed CD (JPEG + MP3) into the disc tray.**

2 **In case of playing a Mixed CD, press the ▲▼ buttons to select Photo and press the OK or ► button.**
(In case of playing a Picture CD, see number 3 on the next page.)



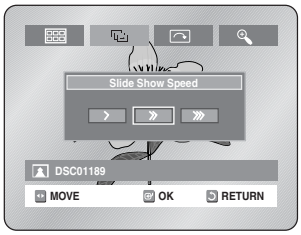
3 **Press the ▲▼◄► buttons to select a picture.**



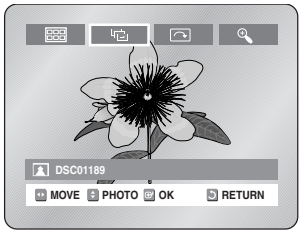
- To see the next 6 pictures, press the ⏭ button.
- To see the previous 6 pictures, press the ⏮ button.

4-1 If your press the PLAY (⏯) button, the Slide show screen will appear.

The picture interval (Slide show speed) must be set.



4-2 Use the ◄► buttons to select a picture file in Album screen and then press the OK button.



: Returns to the Album screen.

: The unit enters slide show mode. Before the slide show can begin, the picture interval (Slide show speed) must be set.

: Each time the OK button is pressed, the picture rotates 90 degrees clockwise.

: Each time the OK button is pressed, the picture is enlarged up to 4X. (Normal → 2X → 4X → 2X → Normal)

- Press the ANYKEY button to clear or display menus.

Playing the Title List

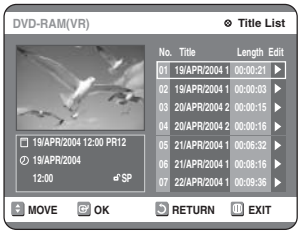
DVD-RAM DVD-RW DVD-R

Follow these instructions to play back a scene from the Title List.

Using the TITLE LIST button

1 **Press the TITLE LIST button.**

The Title List screen is displayed.



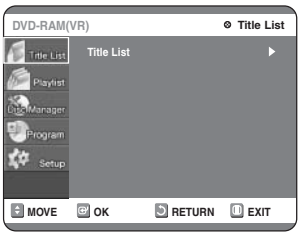
2 **Press the ▲▼ buttons to select an entry you want to play from Title List, and then press the PLAY ⏯ button.**

The selected entry (title) will be played back.

3 **To stop title play, press the STOP button. To return the title list screen, press the TITLE LIST button.**

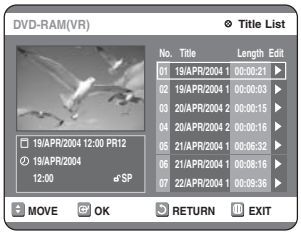
Using the MENU button

1 **Press the MENU button.**



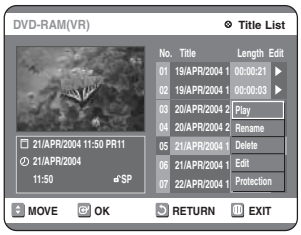
2 **Press the ▲▼ buttons to select Title List, and then press the OK or ► button twice.**

The Title List screen is displayed.



3 **Press the ▲▼ buttons to select Title, and then press the OK or ► button.**

The Edit menu is displayed on the right.

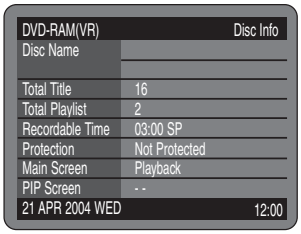


(Play, Rename, Delete, Edit, Protection: See pages 71~74)

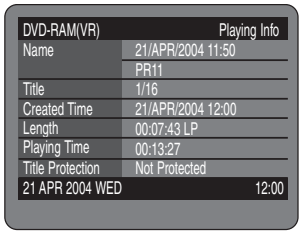
4 **Press the ▲▼ buttons to select Play to play the title list and then press the OK button.**

The selected entry (title) will be played back.

To view the current status of the disc and progress of playback : Press the INFO. button, and the information about the disc will appear.



Press the INFO. button once again. Then you can check the information about the title under playback.



5 **To stop title play, press the STOP button.**

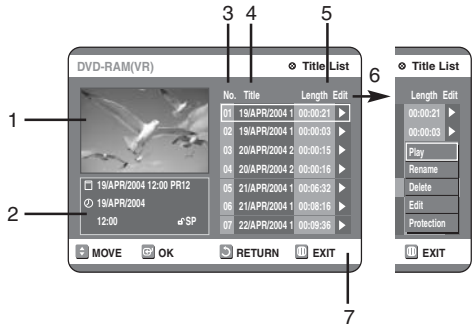
To return the title list screen, press the TITLE LIST button.

NOTE

■ You can also play a recorded program by pressing the ANYKEY button.

■ Press the ▲▼ buttons to select Title.
■ Press the ◄► buttons to select to play the title list and then press the OK button.

Title List Screen Elements



1. Playback screen for recorded entries.
2. Information window for the selected entry:
   Title name, recording date, recording time, lock status, recording mode
3. Recorded entry No.
4. Recorded entry title
5. Recording duration (i.e., the playing time)
6. Title list edit items
   Play: Plays the selected entry.
   Rename: Renames the title of a selected entry.
   Delete: Deletes the selected entry from the list.
   Edit: Deletes a section.
   Protection: Locks or unlocks the selected entry.
7. Button display.

NOTE

- This may depend on the type of disc.
- DVD-R/DVD-RW (Video) has limited editing function.

Editing

This section introduces basic functions of DVD editing and explains both edit functions for the recording on a disc and edit functions for the entire disc.

Basic Editing (Title List).....71
Advanced Editing (Play List) 75
Disc Manager 83

- **Title List**
  Title refers to a recorded video and audio stream. Title List shows a list to help you select a title. Since the title list consists of the information on stream that is actually recorded, if one title is deleted, that title cannot be played again.

- **Play List**
  This refers to a unit of playback, which is made by selecting a desired scene in the entire Title List. When one playlist is played, only the scene selected by the user will play and then stop. Since only the information necessary for playing a desired scene is included in a playlist, even if that playlist is deleted, the original stream will not be deleted.

If recording or editing could have not been finished properly because of any kinds of error, such as sudden power failure, the recording or editing might have not been done.

Please be aware that a material that has been damaged is unable to be retrieved to its original content.

Basic Editing (Title List)

Renaming (Labeling) a Title

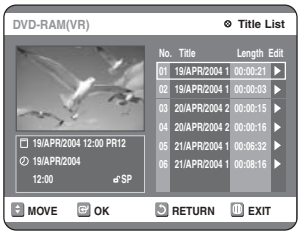
Follow these instructions to rename a title list entry, i.e., to edit the title of a recorded program.

DVD-RAM DVD-RW DVD-R

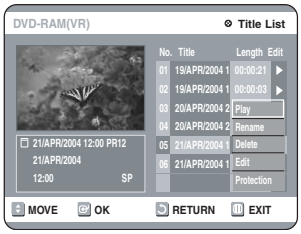
Using the TITLE LIST button

1 **Press the TITLE LIST button.**
The Title List screen is displayed.

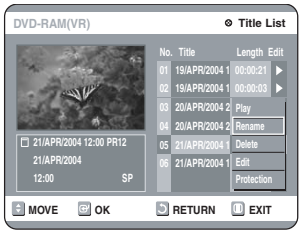
Using the MENU button
- Press the MENU button.
- Press the ▲▼ buttons to select Title List, and then press the OK or ► button twice.

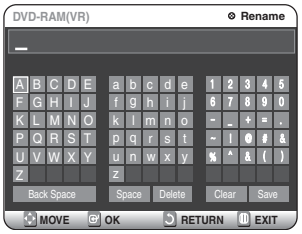


2 **Press the ▲▼ buttons to select an entry you want to rename from the Title List, and then press the OK or ► button.**

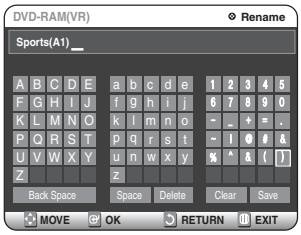


3 **Press the ▲▼ buttons to select Rename, and then press the OK button.**
The Rename screen is displayed.



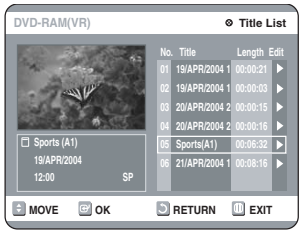

DVD-RAM(VR)
Rename
A B C D E a b c d e 1 2 3 4 5
F G H I J f g h i j 6 7 8 9 0
K L M N O k l m n o - _ + = .
P Q R S T p q r s t ~ ! @ # &
U V W X Y u n w x y % ^ & ( )
Z z
Back Space Space Delete Clear Save
MOVE OK RETURN EXIT

4 **Select the desired characters using the arrow (▲▼◄►) buttons, press the OK button.**


DVD-RAM(VR)
Rename
Sports(A1)_
A B C D E a b c d e 1 2 3 4 5
F G H I J f g h i j 6 7 8 9 0
K L M N O k l m n o - _ + = .
P Q R S T p q r s t ~ ! @ # &
U V W X Y u n w x y % ^ & ( )
Z z
Back Space Space Delete Clear Save
MOVE OK RETURN EXIT

- **Back Space:** Moves the cursor one position backwards. (Equivalent to the CANCEL button)
- **Space:** Enters a blank and moves the cursor one forward (to the right).
- **Delete:** Deletes the character at the cursor position.
- **Clear:** Deletes all the character inputs.
- **Save:** Registers the character inputs.

5 **Press the arrow buttons to select Save, and then press the OK button.**
The changed title name is displayed on the title item of the selected entry.



English

Locking (Protecting) a Title

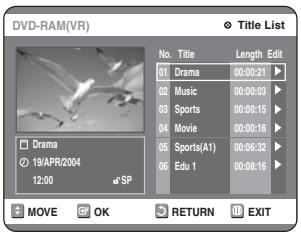
Follow these instructions to lock an entry to protect it from accidental deletion.

DVD-RAM DVD-RW DVD-R

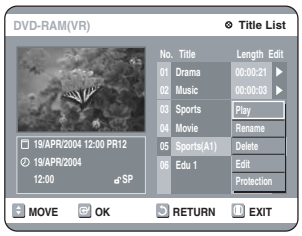
Using the TITLE LIST button

1 **Press the TITLE LIST button.**
The Title List screen is displayed.

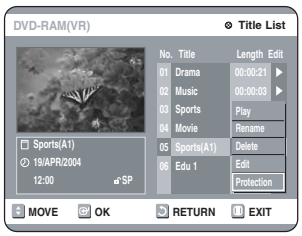
Using the MENU button
- Press the MENU button.
- Press the ▲▼ buttons to select Title List, and then press the OK or ► button twice.

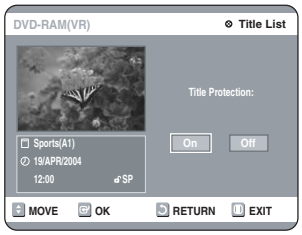


2 **Press the ▲▼ buttons to select an entry you want to protect in the Title List, and then press the OK or ► button.**

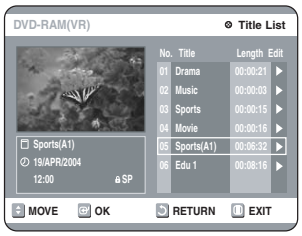


3 **Press the ▲▼ buttons to select Protection, and then press the OK button.**





4 **Press the ▲▼ buttons to select On, and then press the OK button. The key icon on the information window for the selected entry changes to the locked status. (→)**



Deleting a Title

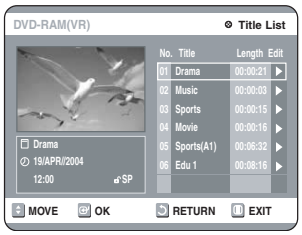
Follow these instructions to delete an entry from the Title List.

DVD-RAM DVD-RW DVD-R

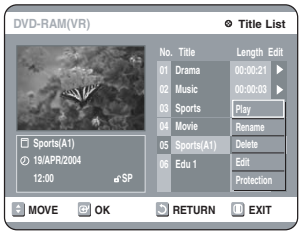
Using the TITLE LIST button

1 **Press the TITLE LIST button.**
The Title List screen is displayed.

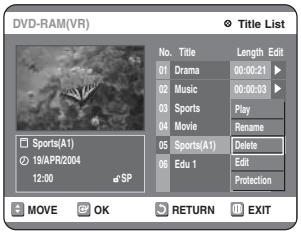
Using the MENU button
- Press the MENU button.
- Press the ▲▼ buttons to select Title List, and then press the OK or ► button twice.



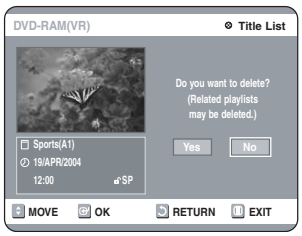
2 **Press the ▲▼ buttons to select an entry you want to delete in the Title List, and then press the OK or ► button.**



3 Press the ▲▼ buttons to select Delete, and then press the OK button.



You will be prompted with the confirmation message.
DVD-RAM (VR), DVD-RW (VR mode): Since Playlist is present, the message 'Do you want to delete? (Related playlist may be deleted.)' is displayed.
DVD-RW (Video mode), DVD-R: Since Playlist is not present, the message 'Do you want to delete?' is displayed.



• This may depend on the type of disc.

4 Press the ◄► buttons to select Yes, and then press the OK button.

NOTE

- You cannot delete a protected entry. If you want to delete a protected entry, select "OFF" in the Title Protection menu.
- Disc Protection: When Protected or Cartridge Protection has been set when a DVD-RAM is used, data cannot be deleted from a disc.
- Once an entry is deleted from the Title List it cannot be recovered.
- Once DVD-R, DVD-RW is finalized, it cannot be deleted.
- With DVD-R, titles are only deleted from the menu, however, the Title remains physically on the disc.

Deleting a Section of a Title

Follow these instructions to delete a section of a Title List entry.

DVD-RAM DVD-RW (VR mode)

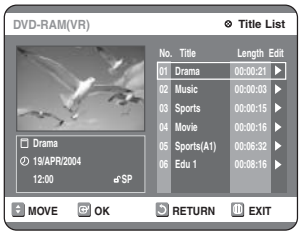
Using the TITLE LIST button

1 Press the TITLE LIST button.

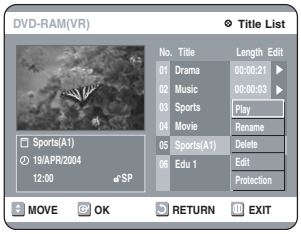
The Title List screen is displayed.

Using the MENU button

- Press the MENU button.
- Press the ▲▼ buttons to select Title List, and then press the OK or ► button twice.

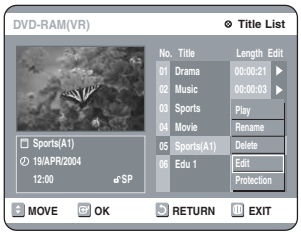


2 Press the ▲▼ buttons to select an entry you want to edit from the Title List, and then press the OK or ► button.



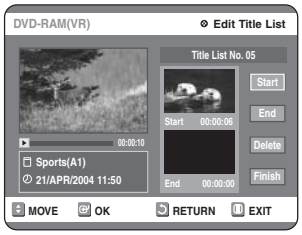
3 Press the ▲▼ buttons to select Edit, and then press the OK button.

The Edit Title List screen is display.

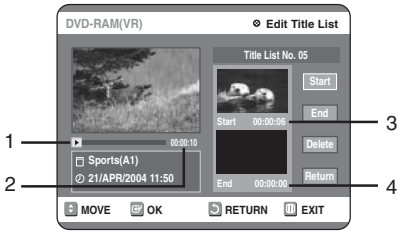


4 Press the OK button at the starting point.

The image and starting point time are displayed in the section deletion starting point window.



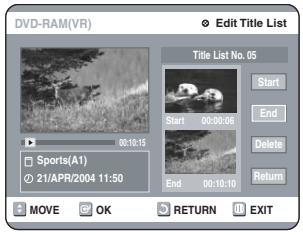
Edit Title List Screen Elements



1. Playback bar
2. Playtime
3. Section deletion starting point window and time
4. Section deletion end point window and time
   - Select the start and end points of the section you want to delete using the playback related buttons.
   - Playback related buttons:
     (⏯, ⏭, ⏮, ⏩, ⏪, ◀II, II▶).

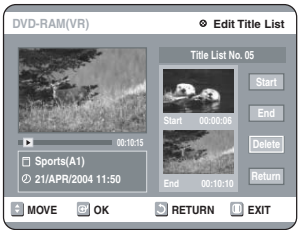
5 Press the OK button at the end point.

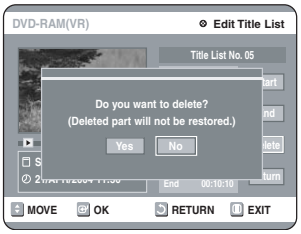
The image and end point time are displayed in the Section deletion ending point window.



6 Press the ▲▼ buttons to select Delete, and then press the OK button.

The selected section has been deleted.





To return to the Title List screen, press the ▲▼ buttons to select Return.

7 Press the MENU button after the operation has finished.

The Title List screen will disappear.

NOTE

- The length of the section to be deleted must be at least 5 seconds long.
- If the length of the section to be deleted is less than 5 seconds, you will be prompted with the message 'The range is too short.'.
- If the end time precedes the starting time, you will be prompted with the message 'End point cannot be marked earlier than start point'.
- The section cannot be deleted when it includes a still picture.

Advanced Editing (Play List)

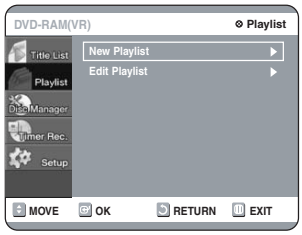
Creating a Playlist

Follow these instructions to create a new playlist entry from a recorded title.

DVD-RAM DVD-RW (VR mode)

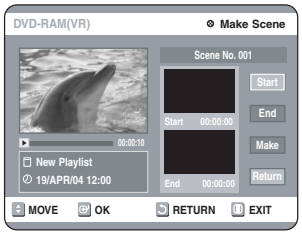
1 **Press the MENU button with the disc stopped.**

2 **Press the ▲▼ buttons to select "Playlist", and then press the OK or ► button.**

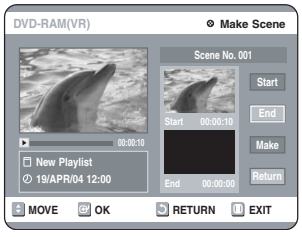


3 **Press the ▲▼ buttons to select "New Playlist", and then press the OK or ► button.**

The Make Scene screen is displayed.

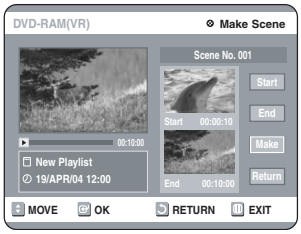


4 **Press the OK button at the start point.**



- The image and time at the start point are displayed on the Start window.
- The yellow-colored selection bar moves to the End item.
- Select the starting point of the section from which you want to create a new scene using the playback related buttons (⏯, ⏭, ⏮, ⏩, ⏪, ◀II, II▶).

5 **Press the OK button at the end point.**



- The image and end point time are displayed in the End window.
- The yellow-colored selection bar moves to the Make item.

- To make a new playlist -

6 **Press the ▲▼ buttons to select Make, and then press the OK button.**

A new Scene will be added to the current Playlist.
A new Make Scene screen is displayed.
Repeat the above steps to create further scenes.

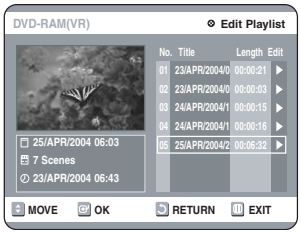
NOTE

- If you want to make a new playlist, go to MENU → new playlist.
- You can check and see all the scenes on Edit Playlist screen.

- To return to Edit Playlist menu -

7 **Press the ▲▼ buttons to select Return, and then press the OK button.**

The Edit Playlist screen is displayed.



8 **Press the MENU or PLAY LIST button after the operation has finished.**

The Edit Playlist screen will disappear.

NOTE

- You can create up to 99 playlist entries.
- Depending on the kind of disc, the displayed screen may have a slight difference.

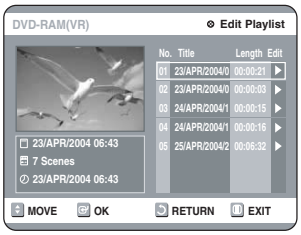
Playing Entries in the Playlist

Follow these instructions to play the playlist entries.

DVD-RAM DVD-RW (VR mode)

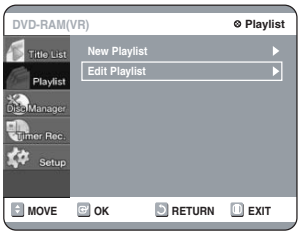
1 Press the PLAY LIST button.

The Edit Playlist screen is displayed.



Using the MENU button

- Press the MENU button when the disc has stopped.
- Press the ▲▼ buttons to select Playlist, and then press the OK or ► button.
- Press the ▲▼ buttons to select Edit Playlist, and then press the OK or ► button.

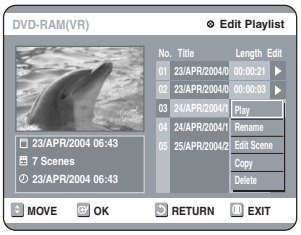


2 Press the ▲▼ buttons to select the title you want to edit from the Playlist, and then press the OK or ► button.

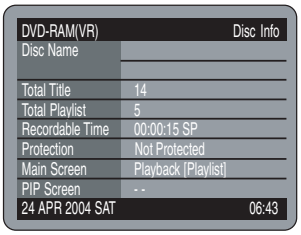
The Edit Playlist menu is displayed : Play, Rename, Edit Screen, Copy, Delete.

3 Press the ▲▼ buttons to select Play, and then select the OK button.

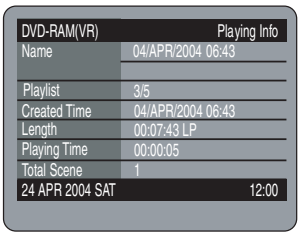
The playlist entries will be played.



- To view the current status of the disc and progress of playback : Press the INFO. button, and the information about the disc will appear.



- Press the INFO. button once again. Then you can check the information about the playlist under play back.



- The screen returns to the Edit Playlist screen when the playback has finished.

4 Press the STOP button to stop playing.

The screen returns to the Edit Playlist screen.

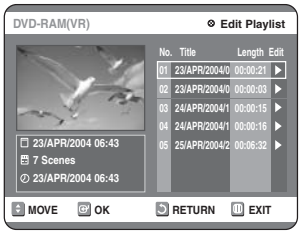
Renaming a Playlist Entry

Follow these instructions to rename a playlist entry, i.e. to edit the title of a playlist entry.

DVD-RAM DVD-RW (VR mode)

1 Press the PLAY LIST button.

The Edit Playlist screen is displayed.

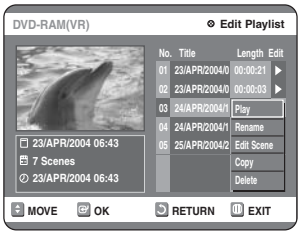


Using the MENU button

- Press the MENU button when the disc has stopped.
- Press the ▲▼ buttons to select Playlist, and then press the OK or ► button.
- Press the ▲▼ buttons to select Edit Playlist, and then press the OK or ► button.

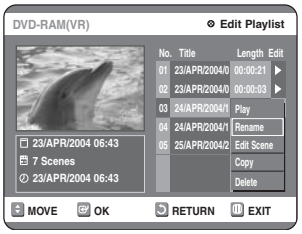
2 Press the ▲▼ buttons to select the title you want to edit from the Playlist, and then press the OK or ► button.

The Edit Playlist menu is displayed: Play, Rename, Edit Scene, Copy, Delete



3 Press the ▲▼ buttons to select Rename, and then press the OK button.

The Rename screen is displayed.



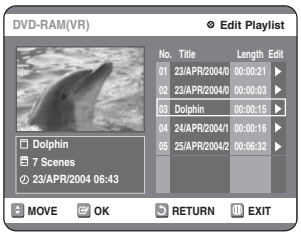
4 Enter the desired characters using the ▲▼◄► buttons.

DVD-RAM(VR)
Rename
Dolphin
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
a b c d e f g h i j k l m n o p q r s t u n w x y z
1 2 3 4 5 6 7 8 9 0
Back Space
Space
Delete
Clear
Save
MOVE OK RETURN EXIT

- This function is the same as the Rename function in the renaming the title list. (See page 71.)
- The maximum number of characters that can be entered is 31. All 31 characters can then be displayed by pressing the INFO. button.

5 Press the arrow buttons to select Save, and then press the OK button.

The changed title is displayed in the title field of the selected playlist entry.



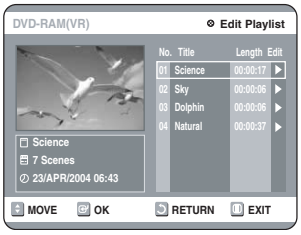
English

Editing a Scene for the Playlist

Follow these instructions to edit scenes for a playlist.

DVD-RAM DVD-RW (VR mode)

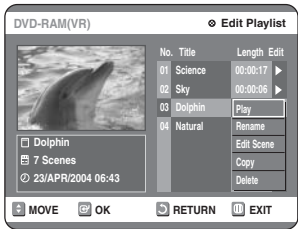
1 **Press the PLAY LIST button.**
The Edit Playlist screen is displayed.



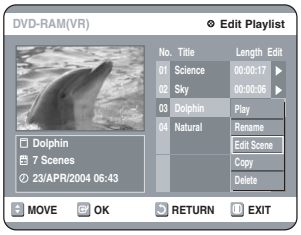
Using the MENU button

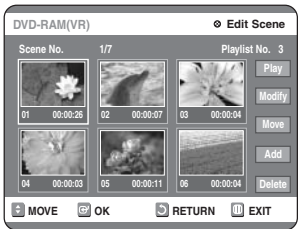
- Press the MENU button when the disc has stopped.
- Press the ▲▼ buttons to select Playlist, and then press the OK or ► button.
- Press the ▲▼ buttons to select Edit Playlist, and then press the OK or ► button.

2 **Press the ▲▼ buttons to select the title you want to edit from the Playlist, and then press the OK or ► button.**
The Edit Playlist menu is displayed:
Play, Rename, Edit Scene, Copy, Delete



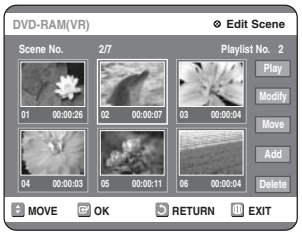
3 **Press the ▲▼ buttons to select Edit Scene, and then press the OK button.**
The Edit Scene screen is displayed.



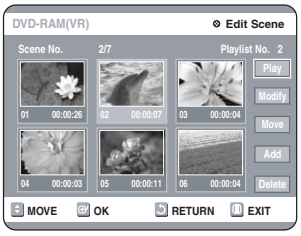


Playing a Selected Scene

4 **Press the arrow buttons to select the scene you want to play, and then press the OK button.**
The playlist entry to be played is selected.



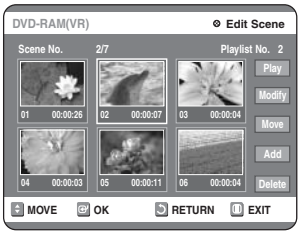
5 **Press the OK button.**
The selected scene is played.



- To stop scene play, press the STOP button.
- Select a desired scene by using the ▲▼◄► buttons and press the PLAY button. Then playback will operate.

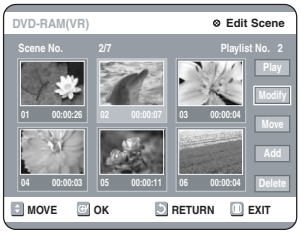
Modifying a Scene (Replacing a Scene)

4 Press the arrow buttons to select the scene you want to modify, and then press the OK button.

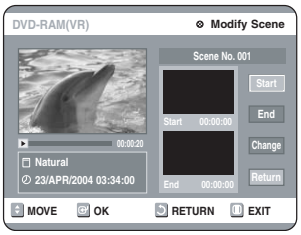


5 Press the ▲▼ buttons to select Modify, and then press the OK button.

The Modify Scene screen is displayed.

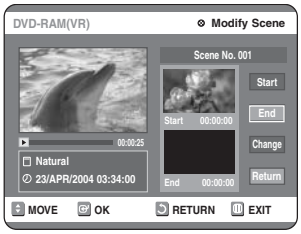


6 Press the OK button at the start point of the scene.



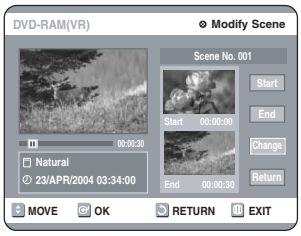
- The image and starting point time are displayed on the Start window.
- Select the starting or ending point of the section you want to modify using the playback related buttons (⏯, ⏭, ⏮, ⏩, ⏪, ◀II, II▶).

7 Press the OK button at the end point of the scene.

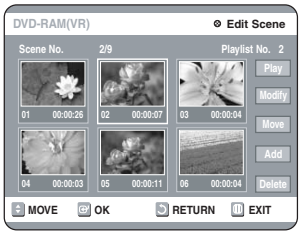


- The image and ending point time are displayed in the End window.

8 Press the ▲▼ buttons to select Change, and then press the OK button.

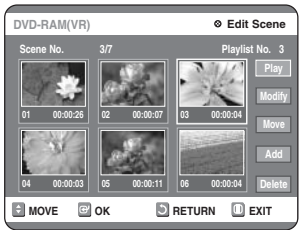


- The scene you want to modify is changed with the selected section.

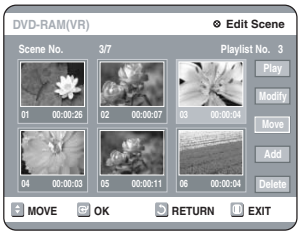


Moving a Scene (Changing the Position of a Scene)

4 **Press the ▲▼◄► buttons to select the scene you want to move (change the position), and then press the OK button.**

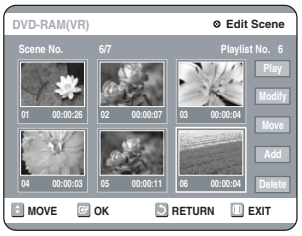


5 **Press the ▲▼ buttons to select Move, and then press the OK button.**

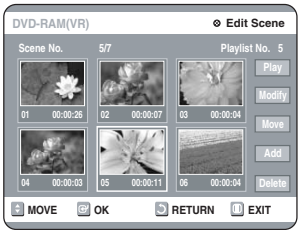


- A yellow selection window is displayed on the scene to be moved.

6 **Press the ▲▼◄► buttons to select the position to which you want to move the selected scene, and then select the OK button.**



- The selected scene is moved to the selected position.



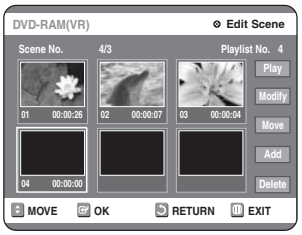
NOTE

- You cannot move the selected scene to the position of the next scene, because the selected scene should be inserted before that position, which requires no action.
- Depending on the kind of disc, the displayed screen may have a slight difference.

Adding a Scene

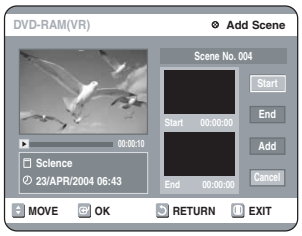
4 **Press the ▲▼◄► buttons to select the scene that will have a new scene inserted before it, and then press the OK button.**

A yellow selection window is displayed on the scene to be added as the new scene.

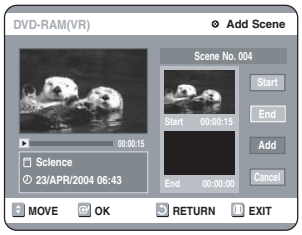


5 **Press the OK button.**

The Add Scene screen is displayed.

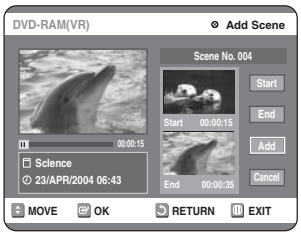


6 **Press the OK button at the starting point of the scene.**



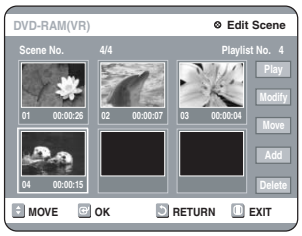
- The image and starting point time are displayed in the Start window.
- Select the end point of the section where you want to add the new scene using the playback related buttons (⏯, ⏭, ⏮, ⏩, ⏪, ◄II, II►).

7 Press the OK button at the end point of the scene.



- The image and time of the end point are displayed in the End window.

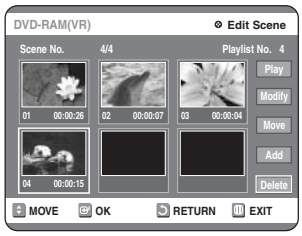
8 Press the ▲▼ buttons to select Add, and then press the OK button.



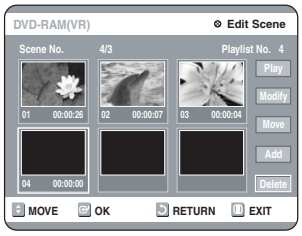
- The section you want to add is inserted prior to the scene selected in step 4 of Adding a Scene on the previous page.
- To cancel, press the ▲▼ buttons to select cancel and then press the OK button.

Deleting a Scene

4 Press the arrow buttons to select the scene you want to delete, and then press the OK button.



5 Press the ▲▼ buttons to select Delete, and then press the OK button.

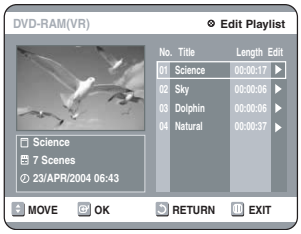


Copying a Playlist Entry to the Playlist

Using the PLAY LIST button

1 Press the PLAY LIST button.

The Edit Playlist screen is displayed.

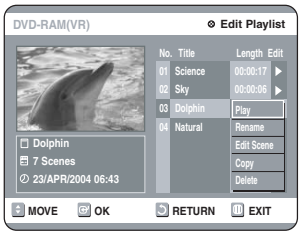


Using the MENU button

- Press the MENU button. When the disc has stopped.
- Press the ▲▼ buttons to select Playlist, and then press the OK or ► button.
- Press the ▲▼ buttons to select Edit Playlist, and then press the OK or ► button.

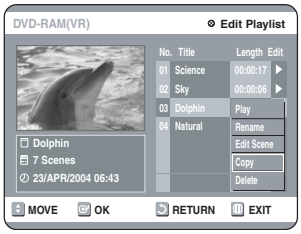
2 Press the ▲▼ buttons to select the title you want to edit from the Playlist, and then press the OK or ► button.

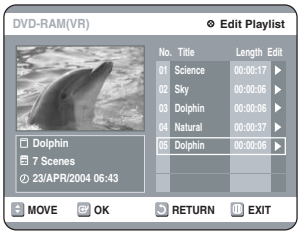
The Edit Playlist menu is displayed.: Play, Rename, Edit Scene, Copy, Delete



3 Press the ▲▼ buttons to select Copy, and then press the OK button.

Playlist that has been selected at last will be copied.





4 Press the MENU button after the operation has finished. The menu screen will disappear.

NOTE

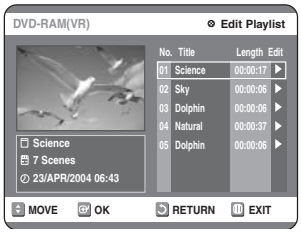
■ You can create up to 999 scenes on one disc. In some cases, this may be different from the actual numbers.

Deleting a Playlist Entry from the Playlist

Using the PLAY LIST button

1 Press the PLAY LIST button.

The Edit Playlist screen is displayed.

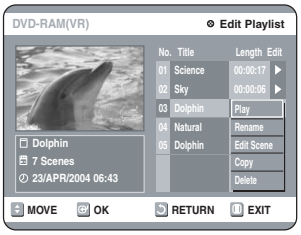


Using the MENU button

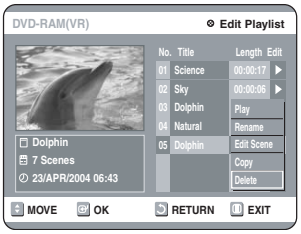
- Press the MENU button. When the disc has stopped.
- Press the ▲▼ buttons to select Playlist, and then press the OK or ► button.
- Press the ▲▼ buttons to select Edit Playlist, and then press the OK or ► button.

2 Press the ▲▼ buttons to select the title you want to edit from the Playlist, and then press the OK or ► button.

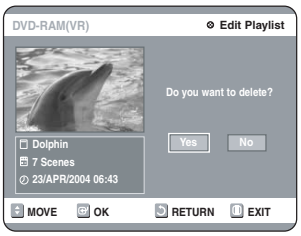
The Edit Playlist menu is displayed.: Play, Rename, Edit Scene, Copy, Delete



3 Press the ▲▼ buttons to select Delete, and then press the OK button.

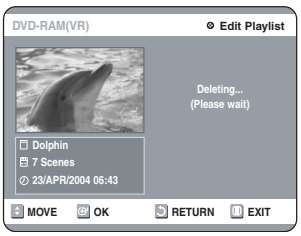


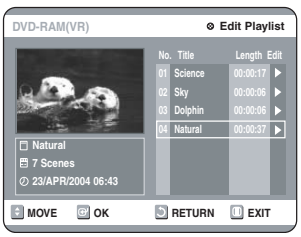
- You will be prompted with the delete confirmation message 'Do you want to delete?'.



4 Press the ◄► buttons to select Yes, and then press the OK button.

You automatically returned to the Edit Playlist screen after the delete operation has finished.





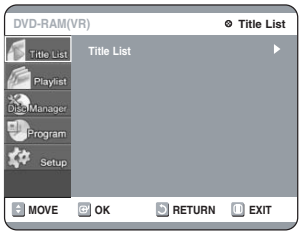
Disc Manager

Editing the Disc Name

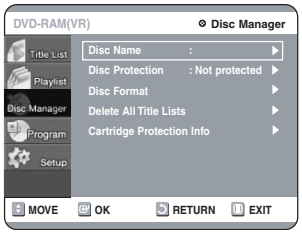
Follow these instructions to give a name to a disc.

DVD-RAM DVD-RW DVD-R

1 **Press the MENU button with the disc stopped.**

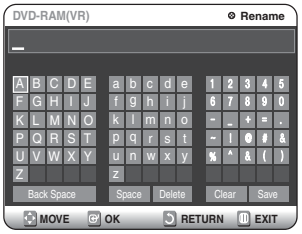


2 **Press the ▲▼ buttons to select Disc Manager, and then press the OK or ► button.**

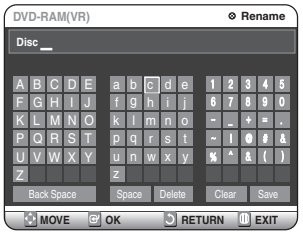


3 **Press the ▲▼ buttons to select Disc Name, and then press the OK or ► button.**

The Edit Name screen is displayed.

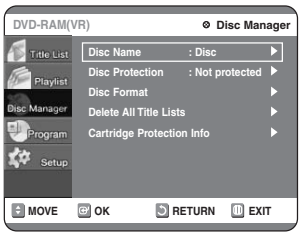


4 **Enter the desired characters using the arrow buttons.**



5 **Press the arrow buttons to select Save and then press the OK button.**

A disc name is given to the disc.



NOTE

- You may need to clear cartridge protect or disc protect before beginning editing.
- Depending on the kind of disc, the displayed screen may be different.

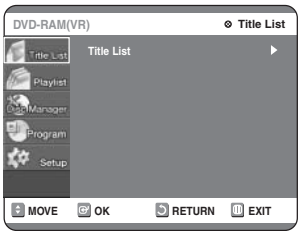
English

Disc Protection

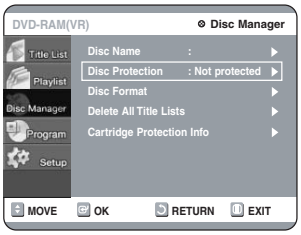
Disc Protect allows you to protect your discs from being formatted or deleted due to unintended operations.

DVD-RAM DVD-RW DVD-R

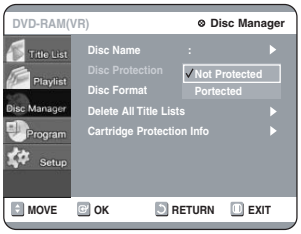
1 Press the MENU button with the disc stopped.



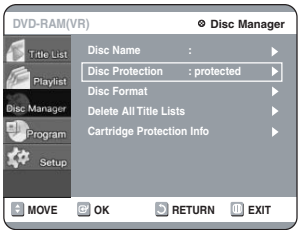
2 Press the ▲▼ buttons to select Disc Manager, and then press the OK or ► button.
Press the ▲▼ buttons to select Disc Protection.



3 Press the OK or the ► button and then press the ▲▼ button to select Protected.



4 Press the OK button.



NOTE

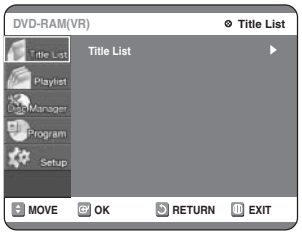
■ Disc Protection will operate only if cartridge protection has been cleared. (DVD-RAM only)

Formatting a Disc

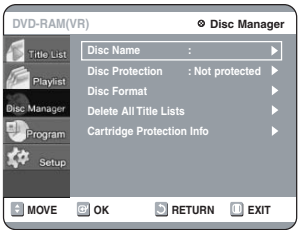
Use these instructions to format a disc. The cartridge write protect tab should be set to the unprotect position. The disc protect should also be cleared.

DVD-RAM DVD-RW

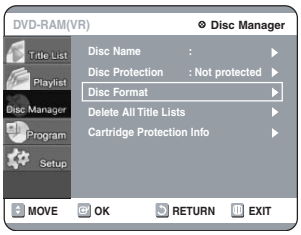
1 Press the MENU button with the disc stopped.



2 Press the ▲▼ buttons to select Disc Manager, and then press the OK or ► button.

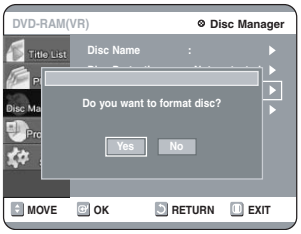


3 Press the ▲▼ buttons to select Disc Format, and then press the OK or ► button.



DVD-RAM

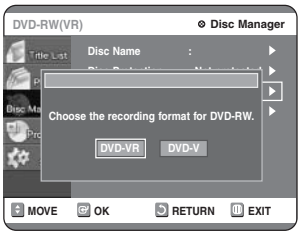
- You will be prompted with the confirmation message 'Do you want to format disc?'.



- You will be prompted with the confirmation message 'All data will be deleted. Do you want to continue?'.

DVD-RW

- You will be prompted with the confirmation message 'Choose the recording format for DVD-RW.'



4 Press the ◄► buttons to select Yes, and then press the OK button. The disc is formatted.

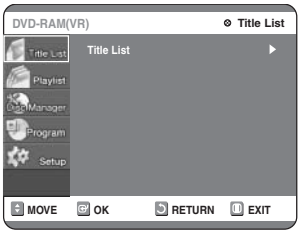
DVD-VR and DVD-V are defined according to their recording format.

	DVD-VR	DVD-V
Editing	Possible (Partial editing is possible)	Not available
DISC	DVD-RAM DVD-RW	DVD-RW DVD-R

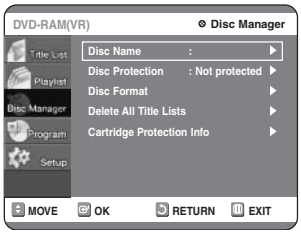
Delete All Title Lists

DVD-RAM DVD-RW DVD-R

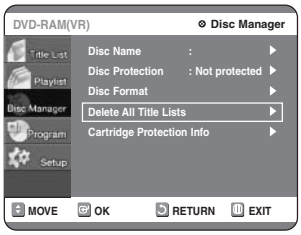
1 Press the MENU button with the disc stopped.



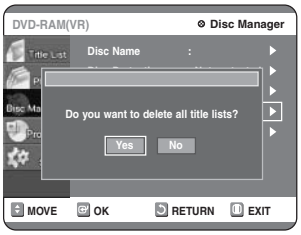
2 Press the ▲▼ buttons to select Disc Manager, and then press the OK or ► button.



3 Press the ▲▼ button to select Delete All Title Lists, and then press the OK or ► button.



• You will be prompted with the confirmation message 'Do you want to delete all title lists?'.



• When Protected Entry exists: The Delete All Title List function will not operate. If there is a title containing a still picture, however, that function will not operate. If you want to delete a protected entry, disable Protect for it on the Lock item.
• Disc Protection: When Protected or Cartridge Protection has been set, when a DVD-RAM is used, data cannot be deleted from a disc.

4 Press the ◄► buttons to select Yes, and then press the OK button.

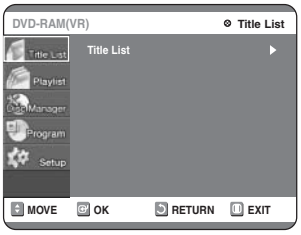
All title lists are deleted.

Cartridge Protect Info

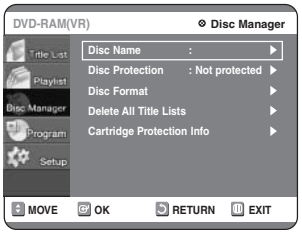
Disc Protect allows you to protect discs from disc formatting and program deletion due to unintended operations. The cartridge write protect tab should be set to the unprotect position to be able to make a recording to a DVD-RAM disc.

DVD-RAM

1 Press the MENU button with the disc stopped.

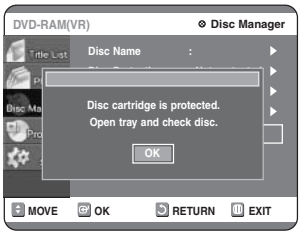


2 Press the ▲▼ buttons to select Disc Manager, and then press the OK or ► button.

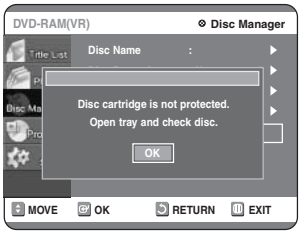


3 Press the ▲▼ buttons to select Cartridge Protect Info, and then press the OK or ► button.

The cartridge protect info for the disc is displayed.
• If the disc cartridge is protected, open the disc tray and check the disc.



• If the disc cartridge is not protected, proceed with recording to the disc.



NOTE

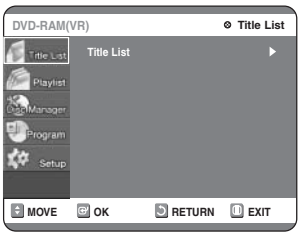
■ Disc Protect will operate only if cartridge protect is set to Not Protected.

Finalizing a disc

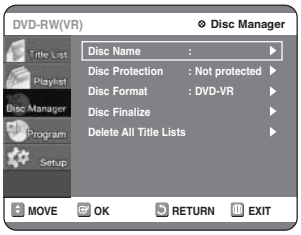
After you record titles onto a DVD-RW/DVD-R disc with your DVD recorder, it needs to be finalized before it can be played back on external devices.

DVD-RW DVD-R

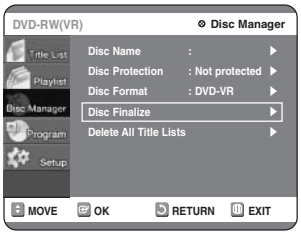
1 Press the MENU button with the disc stopped.

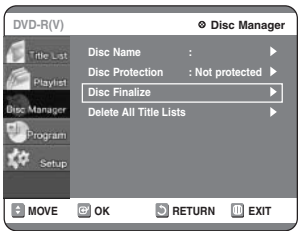


2 Press the ▲▼ buttons to select Disc Manager, and then press the OK or ► button.

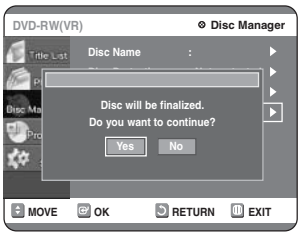


3 Press the ▲▼ button to select Disc Finalize, and then press the OK or ► button.





You will be prompted with the message 'Do you want to finalize disc?'. If you select Yes, you will be prompted again with the message 'Disc will be finalized. Do you want to continue?'



4 Press the ◄► buttons to select Yes, and then press the OK button.

The disc is finalized.

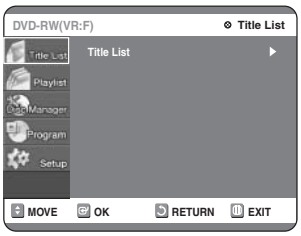
NOTE

- Once a disc is finalized, you cannot delete entries from the record list.
- After being finalized, the DVD-R/DVD-RW (video mode) operates in the same manner as a DVD-Video.
- Depending on the kind of disc, the displayed screen may have a slight difference.
- Finalizing time may be different depending on the amount of data recorded on the disc.
- Data on the disc will be damaged if the recorder is powered off during finalize process.

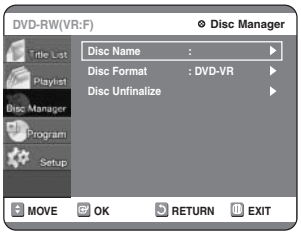
Unfinalizing a disc (V/VR mode)

DVD-RW

1 Press the MENU button with the disc stopped.

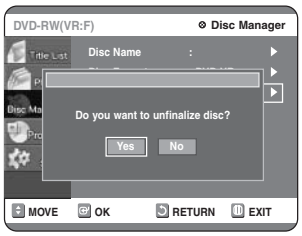


2 Press the ▲▼ buttons to select Disc Manager, and then press the OK or ► button.

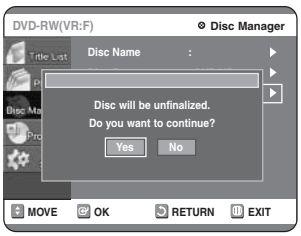


3 Press the ▲▼ button to select Disc Unfinalize, and then press the OK or ► button.

You will be prompted with the message 'Do you want to unfinalize disc?'.



If you select Yes, you will be prompted again with the message 'Disc will be unfinalized. Do you want to continue?'



4 Press the ◄ ► buttons to select Yes, and then press the OK button.

The disc is unfinalized.

NOTE

■ A DVD-RW can be finalized or unfinalized in Video mode.

	Finalize	Unfinalize
Mark	DVD-Video (RW)	DVD-RW (V)
Operation	Same as DVD-Video	Additional recording, protection and deletion are possible.

■ A DVD-RW can be finalized or unfinalized in VR mode.

	Finalize	Unfinalize
Mark	DVD-RW (VR:F)	DVD-RW (VR)
Operation	Additional recording, deletion, editing, and protection are impossible.	Additional recording, deletion, editing, and protection are possible.

Additional Information

Troubleshooting

▼

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Troubleshooting

If your product malfunctions, go through the checkpoints below before contacting a Hitachi authorized service center.

Power	**The input is displayed for a while when the power is turned on.**	The DVD recorder requires some time to initialize and the input will be displayed for approx. 10 seconds after it is turned on.
Recording	**Cannot record TV programs.**	• Check whether the power cord is securely plugged into the power outlet. • Did you set the DVD recorder channel settings correctly? • Check the free space on your DVD-RAM/DVD-RW/DVD-R discs.
	I pressed the REC button but there is no response.	Recording is possible for DVDRAM/DVD-RW/DVD-R discs only. If a program is copy protected, it cannot be recorded.
	Differences between Using REC PAUSE Button and Using Stop Button during Recording	Each press of the Stop button during recording creates a title. When the REC PAUSE button is pressed, the paused state is kept. When the REC Pause button is pressed again during REC pause, the title under pause will be kept recording.
Playback	**Cannot play the disc.**	• Check whether the disc is inserted correctly with the label facing up. • Check the regional code of the DVD disc. • This DVD recorder cannot play some types of discs. (See page 5, 49)
	⊘ icon appears on the screen.	You cannot use this operation or function due to one of the following reasons: (1) Your DVD disc restricts it. (2) Your DVD disc does not support this feature (for example: angles) (3) The feature is not available at the moment. (4) You've requested a title, chapter, or scan time that is out of range.
	Play mode settings are different from the settings configured in the Settings menu.	The disc does not support all selected functions. In this case, some settings configured in the settings menu may not work properly.
	Cannot change the aspect ratio.	The aspect ratio is fixed for DVD discs. (See page 33)
	The angle operation does not work while playing a DVD disc.	The angle operation is available only when the disc contains images captured from different angles.
	The selected audio and/or subtitle language is not played.	Audio and subtitle languages are disc-specific. Only the sound and subtitle languages contained on the DVD disc are available and displayed in the disc menu.

Video	**The disc revolves, but no image or bad quality images are displayed.**	• Check whether there is damage to or any foreign material on your disc. • Some low quality discs may not play properly. • If scenes change from dark to bright suddenly, the screen may shake vertically temporarily, but this is not a fault.
Sound	**No sound.**	• Are you watching a program in slow or skip mode? If you are playing a program at a speed other than normal speed, sound will not be heard. • Check the connections and settings. • Check whether the disc is damaged. Clean the disc, if necessary. • Check whether the disc is inserted correctly with the label facing up.
	No audio output.	Check whether you have selected the correct digital output options in the Audio Output Options menu. (See page 31, 32)
Timer Recording	**Timer lamp flickers.**	• Check there is enough space in the disc for recording. • Check whether the current disc is recordable or not. Make sure to check before the start time of recording.
	Timer recording does not work properly.	• Re-check the recording time and the end time settings again. • Recording will be cancelled, if the power is disconnected due to a power failure or another similar reason while recording.
Remote control	**The remote control doesn't work.**	• Point the remote control at the remote control sensor on your DVD recorder. Allow for proper distance. Remove obstacles between your DVD recorder and the remote control. • Check whether the batteries are empty. • Check for the DVD/TV selection button.
Other	**I forget my password for parental supervision.**	Press the (⏯) and (⏹) buttons on your DVD recorder simultaneously when the power is on. All settings including the password will revert to the factory settings. Do not use this unless absolutely necessary. (Note that this function is possible only when no disc is inserted.)
	Is it possible to change a subtitle and an audio signal on a recorded disc?	A recorded disc is played with only the subtitle and the audio signal which were selected during recording.
	Other problems	• Read the table of contents and then find and read the section describing your problem, and follow the instructions given. • Turn your DVD recorder off and on. • If the problem still persists, contact a nearby Hitachi service center.

Specifications

General	Power requirements		230 V AC, 50 Hz
	Power consumption		35 Watts
	Weight		Approx. 3.8 kg (Approx. 8.27 lb)
	Dimensions		Approx. 430 mm (W) × 279 mm (D) × 69 mm (H) (Approx. 16.9 in (W) × 11 in (D) × 2.7 in (H))
	Operating temp.		+5°C to +40°C (+41°F to +104°F)
	Other conditions		Keep level when operating. Less than 75% operating humidity
Input	Video (AV3, AV4)		Composite Video : 1.0 Vp-p at 75Ω load, sync negative
			S-Video input (Y: 1.0 Vp-p, C: 0.3 Vp-p at 75Ω load)
	Audio(AV3, AV4)		Max. Audio Input Level: 2 Vrms
	DV Input		IEEE 1394 (4p) compatible jack
	Receivable Channels		PAL I
	Scart Jack	AV1 (Scart TV)	Video : Composite, Audio: Analog
		AV2 (Scart Ext)	Video : Composite, RGB Audio: Analog
Output	Audio		Analog output jacks 1, 2
			Optical/Coaxial digital audio output
			Full scale Analog output level : 2 Vrms
	Video		Composite Video : Video output jack 1
			S-Video output 1 (Y:1.0 Vp-p, C: 0.3 Vp-p at 75Ω load)
	Scart Jack	AV1 (Scart TV)	Video : Composite, RGB Audio: Analog
		AV2 (Scart Ext)	Video : Composite Audio: Analog
Recording	Picture Compression format		MPEG-II
	Audio Compression format		Dolby Digital 2 ch/256 kbps, MPEG-II
	Recording Time		XP (approx. 1 hour), SP (approx. 2 hours), LP (approx. 4 hours), EP (approx. 6 hours), FR (approx. 1 to 6 hours)
	Audio Frequency Response		20 Hz ~ 20 kHz

Audio Output

For DVD discs, audio signals recorded at 96kHz sampling frequency are converted and output at 48 kHz.

DVD	Disc Type	AUDIO CD (CDDA)
Analog Audio Output	48 / 96 kHz	44.1 kHz
Digital Audio Output	48 kHz	44.1 kHz

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